THE TIMES
Higher Education
SUPPLEMENT

New budget will hinder our work, SRC says

by Clive Cookson
science correspondent

The Science Research Council has become increasingly convinced over the past year that the lower budgets it is to receive over the next few years will not allow it to discharge its responsibilities adequately.

The SRC annual report, published yesterday, says the combination of managerial and financial problems facing the council in 1977 are even more severe than during last year's cash crisis. Its 1977-78 budget is 4 per cent less in real terms than in 1976-77, and the reduction is expected to reach 10 per cent by 1981-82.

"In order to provide extra studentships to make good part of the expected loss of support from non-governmental bodies and to mobilize a minimum of free funds for new projects of great national and scientific importance, the council had to decide to run down other excellent programmes even faster than it and the advisory Board for the Research Councils had considered to be reasonable last year."

Spending on nuclear physics will decrease at 6½ per cent a year instead of the 5 per cent planned last year, from 43½m in 1977-78 to 13.3m in 1981-82. The subscription to CERN, the European nuclear research centre, will be £20m, leaving only £13m for domestic programmes. "This level of expenditure would be inadequate to continue the full exploitation of existing facilities for high energy physics and would not provide for United Kingdom participation in any future international high energy facility; nor would it permit full development and use of the Nuclear Structure Facility being built at the Daresbury Laboratory."

Expenditure on astronomy and geophysics research, excluding the £8m annual subscription to the European Space Agency, will be no more than half the present level by 1982. "This would make it impossible to exploit the United Kingdom lead built up in the rapidly developing field of space astronomy, including X-ray astronomy, or to engage satisfactorily in studies of the earth's immediate environment which are important to the understanding of climate and pollution."

Resources devoted to research and special programmes in the field of engineering will increase by 25 per cent to £18m by 1981/82. But the extra money will be devoted entirely to special programmes of national importance, such as marine technology, the teaching company scheme, and there will be some reduction in spending on normal research grants.

The number of new postgraduate studentships offered in 1981/82 will be about 3,800, compared to 3,400 this year. But the report says this increase will not keep pace with the expected 14 per cent rise in the number of qualified candidates, and competition for awards is likely to be even greater than in 1976 when more than 750 people who satisfied the required high standards had to be refused studentships.

The SRC believes it could carry out its responsibilities if its income was maintained at the current level of £128m per annum. This would require the Government to give the Council £25m more than is currently planned over the period to 1981/82.

● New heads for two research councils were announced this week. Professor Geoffrey Allen, professor of chemical technology at Imperial College, takes over chairmanship of the SRC from Sir Sam Edwards, as reported in *The THES* in March. Sir Sam returns to Cambridge University as John Humphrey Plummer Professor of Physics after four years as chairman.

The new chairman of the Natural Environment Research Council is the distinguished insect physiologist Professor J. W. L. Beament, who has been head of applied biology at Cambridge since 1969. He takes over from Sir Peter Kent, who will remain a member of NERC for a further three years.

29 per cent increase in women poly graduates—CDP

The outstanding feature of a 14 per cent rise in the 1976 output of polytechnic graduates was a 29 per cent increase in women graduating, according to survey figures released this week by the Committee of Directors of Polytechnics.

The survey, which gives full details of the destinations of polytechnic graduates and successful Higher National Diploma students last year, also reveals only a nine per cent increase in men graduating.

There was a marked shift away from public sector jobs towards industry, particularly among engineering and technology students. Of those entering permanent employment 20 per cent went into the public services compared with 27 per cent the previous year. Twelve per cent of HND holders found work in this area, a fall of five per cent.

Eighty-one per cent of the engineering and technology graduates entered industry, a rise of 7 per cent, and there was a similar shift among science students with, for instance 85 per cent of mathematics graduates going to industry or commerce compared with 81 per cent a year earlier.

The bias of polytechnics towards more vocational courses is emphasized. More than two-thirds of the degree output and virtually all the successful HND students in 1976 qualified in subject areas of a clearly applied character.

Sandwich course graduates increased, although the level of students graduating from HND sandwich programmes declined slightly.

The proportion of sandwich graduates going directly into employment reached 70.3 per cent of the total whose destinations were known, compared with 39.9 per cent for full-time courses.

Polytechnic First Degre and HND Students 1976. Some details of First Destinations and Employment: Statistical Suplement. Available from the CDP, 309 Regent Street, London W.1. Price £3.

APT suggests new poly body

A national body appointed by the Department of Education and Science should run polytechnics, the Association of Polytechnic Teachers said in the second part of its submission to the Oakes committee.

The APT, which represents about 3,000 lecturers in polytechnics, advocated the abolition of local authority control except for a residual role inspecting the finances and the educational provision of the colleges periodically.

Other colleges of further education with a certain minimum level of advanced work would also come under the control of the proposel national committee.

Trial syllabuses published

The abolition of A levels came a step nearer this week with the publication by the Schools Council of trial syllabuses for a new system of sixth-form examinations.

The syllabuses together with reports of preliminary studies of "Normal" and "Further" level examinations will be sent out in the next two weeks to universities, polytechnics, examining boards, schools and colleges. Next month trial syllabuses for English, history and social studies will be published.

However the key documents from the Schools Council—studies on resources and on the whole concept of N and F—will not be published until next spring.

Week of talks will decide pay action

by David Walker

Meetings are to take place in most universities this week to determine whether the Association of University Teachers takes industrial action over its pay claim.

Local associations will be electing delegates and deciding on motions for the emergency council meeting of the AUT which is to be held on September 30.

The meetings will have advice on action from the AUT executive which is meeting today. In addition they will consider a circular from militant Scottish university teachers who are demanding the disruption of lectures and seminars if the Government does not settle the claim by the beginning of term.

The motion, backed by Glasgow and Strathclyde University teachers, to be debated at the council meeting, says: "Members of the AUT should take not part in admission procedures or teaching of new entrants to universities for a period to be decided at local level."

In a letter to local secretaries Dr Ronald Emmanuel of Glasgow AUT speaks of a "realistic threat" to the Government. "To gain attention it would be necessary only for a substantial number of first year classes throughout the country to be disrupted for a relatively short time", he says.

The move by Scottish teachers comes after a delegation from the AUT in Glasgow, Edinburgh and Heriot-Watt Universities met Mr Oakes the Minister of State overseeing higher education recently. He assured them he would try to start negotiations on the pay anomaly before September. The AUT's notes of the meeting state that Mr Oakes accepted that unless such negotiations were set in train, the mood of teachers after the emergency council would be bitter.

The AUT headquarters, criticized by teachers in Glasgow and Manchester for being "dilatory" in pursuing the claim, this week added to the pressure on the Government to recognize the AUT as a special case.

Mr Laurie Sapper, the union's general secretary, wrote to the Prime Minister that what had happened to the AUT far exceeded the "rough justice" that inevitably came with incomes policy.

Mr Sapper said total student numbers had increased although cash limits had been imposed.

● A group of lecturers in the engineering department at Manchester University this week threatened to withhold their subscriptions to the AUT unless progress were made in settling the pay claim. They were annoyed because the salaries of AUT officials were to rise in line with the expected incrase in university scales that would accompany a settlement.

Rebate for students from railways

British Rail are to pay thousands of students rebates of between 15p and 48p against the cost of student railcards purchased in the past three years following an appeal court ruling that VAT was overcharged. The rebate payments could total £250,000, the National Union of Students said this week.

University book buying 'has slumped in past two years'

by Judith Judd

Book-buying in universities has slumped over the past two years, according to figures released yesterday in a National Book League report.

Sixteen universities spent less on books per student in 1974-75 than they did in theyear 1972-73, a two-year period during which the purchasing power of the pound fell by more than 40 per cent.

Only four universities—Leicester, London, Aberdeen and Edinburgh—showed consistent rises in spending during the six years under review in the report *University Library Expenditure 1969-75.*

Between 1973 and 1975 23 universities spent less on books. At the bottom of the book spending per student league in 1974-75 are Cardiff, Manchester Institute of Science and Technology, Dundee and Heriot Watt.

The report says: "Though there is remarkable consistency in the appearance of Heriot Watt as the university spending least per student on books, at the other extreme figures for maximum expenditure appear on the whole to re[...] instances of exceptionally [...] spending quite anomalou[...] normal spending pattern of t[...] versity in question."

City, for instance, had the [...] expenditure per student of a[...] versity in 1970-71 at £28[...] spent only £12.98 in 1971-72.

There are big variations in universities' position in the [...] buying league in the course [...] years. Dundee, for instance [...] 14th in 1969-70.

The four universities at the [...] the league in 1974-75 [...] Leicester; second, St Da[...] Keele; and fourth, Queen's [...]

The report says that the [...] of universities which reduc[...] spending in 1974-75 mean [...] per cent of the total were [...] less than £12.73 per stude[...] main reasons for the fall in [...] buying is blamed on inflation [...] the larger percentage of a[...] funds being spent on salaries. *University Library Expend[...] 1969-75*, price 75p, is available [...] the National Book League, 7 [...] marle Street, London.

University Book expenditure per student 1974-75:

1	Leicester	26	Brunel
2	St David's, Lampeter	27	Surrey
3	Keele	28	Birmingham
4	Queen's, Belfast	29	Southampton
5	University of Ulster	30	Reading
6	Stirling	31	Nottingham
7	York	32	Bristol
8	Hull	33	Leeds
9	Oxford	34	Newcastle
10	Welsh National School of Medicine	35	Aston
11	Kent	36	Glasgow
12	Essex	37	University College, Aberystwyth
13	Aberdeen	38	UWIST
14	East Anglia	39	St Andrews
15	Durham	40	Bradford
16	City	41	Salford
17	Warwick	42	Sheffield
18	Cambridge	43	Loughborough
19	University College Swansea	44	Bath
20	Lancaster	45	Liverpool
21	Exeter	46	Edinburgh
22	Manchester	47	Strathclyde
23	Sussex	48	University College, Cardiff
24	London	49	UMIST
25	University College, Bangor	50	Dundee
		51	Heriot Watt

Small standards decline found

The A-level performance of students entering university has fallen only slightly over the past four years, according to statistics published by the Universities Central Council on Admissions.

The figures show that the percentage of students scoring three grade As, two As and a B or C and an A and two Bs went down from 21 to 20 per cent between 1973 and 1976. The percentage of those in the group beneath this, according to the UCCA scoring system, fell from 35 to 33 per cent.

In some subjects—engineering, agriculture, forestry and veterinary science and architecture—the percentage of those in the top group was maintained. In medicine and dentistry it rose from 29 to 35 per cent. It fell, however, in science, language, literature and area stu[...] and in arts subjects other than [...] guages.

The statistics show that bus[...] management courses now top [...] list of those which are increa[...] most in popularity. Last year [...] attracted 3,282 applicants comp[...] with 1,627 in 1972. The figure [...] this year is expected to rise to [...] making the subject the twelfth [...] popular.

Medicine, which had 12,015 app[...] cants last year, is still the [...] popular subject but the number [...] applicants fell.

UCCA Statistical Supplement [...] the Fourteenth Report 1975-76 [...] available from the Universities C[...] tral Council on Admissions, [...] Box 28, Cheltenham, Gloucester[...] shire, GL50 1NY, £1.25.)

Kent student housing report surfaces

A controversial report on student housing by social scientists at the University of Kent for the Department of Education and Science finally saw the light of day this week—but will not be published by Her Majesty's Stationery Office.

Instead the DES is making the report (*THES*, June 24) available in unbound form through the British Library Lending Division.

The report, produced at a cost of £50,000 over four years, argues that providing student housing is not an educational matter. It is a prob[...] lem for the government of the [...] level as housing single [...] people.

Comments on [...] being invited [...] the National Union of Students, the local authority associations the univers[...] ties and the polytechnics. The reaction of the Committee of Vice-Chancellors and Principals and [...] the Association of Metropolitan Authorities was that the report said little that was new.

GMC training survey finds variety

The General Medical Council's three-year £50,000 survey *Basic Medical Education in the British Isles*, published this week, shows the great variety of undergraduate medical teaching in the United Kingdom and Eire.

Some of the 38 medical schools covered by the 900-page report still teach disciplines and specialties in the traditional way, interview all applicants, and give students end-of-course examinations. At others the curriculum has been completely integrated, interviews are not used and continuous assessment has replaced final exams.

The survey, carried out by Dundee University's Centre for Medical Education, is to be used by the GMC as a basis fo rdiscussion about future policy on basic medical education.

Next week *The THES* will publish further details of the report, published by the Nuffield Provincial Hospitals Trust at £14.

NEXT WEEK

Maurice Peston on the Ne[...] Statesman
The GMC survey of medical edu[...] cation
The Institute of Linguists
Hedley Bull on the future [...] nation states

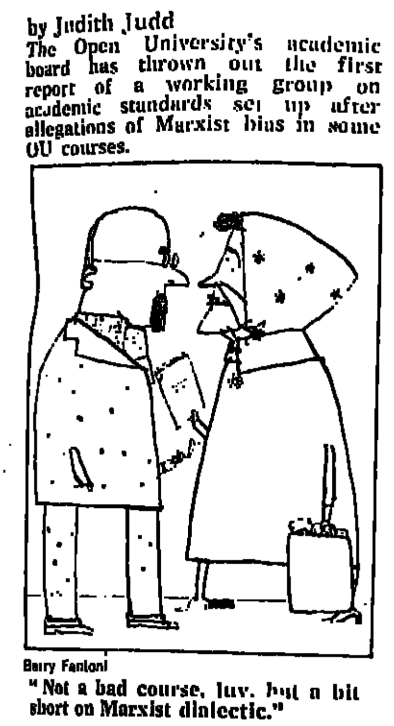
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OU rejects Perry report on standards

by Judith Judd

The Open University's academic board has thrown out the first report of a working group on academic standards set up after allegations of Marxist bias in some OU courses.



Barry Fantoni

"Not a bad course, luv, but a bit short on Marxist dialectic."

The board has told the working group to think again and has added two new members to the group which is headed by Sir Walter Perry, the vice-chancellor. They are Mr Ken Thompson, a sociologist and head of the university's post-experience units, and Mr Geoffrey Esland, author of one of the units of the Schooling and Society course, and a lecturer in sociology in the educational studies department.

It was criticism of Schooling and Society which led to the establishment of the working group.

The part of the report which has angered academics concerns the criteria to be used for courses which recommends that they "should be written in a manner sensitive to public opinion". Such a restraint, they feel, would be unacceptable to any other university and is a threat to academic freedom.

They say courses should not aim to appease public opinion and that some of them should encourage criticism of commonly-held views.

There is also concern about the emphasis on the role of external assessors. As predicted in *The THES* in April the group proopses that all courses should be externally assessed. At the moment a course team is not obliged to appoint external assessors.

The group accepted that the role of the external assessor should primarily be one of advising but felt that the assessor should provide the university with reassurance that the course was being produced in accordance with the criteria, including the controversial one about public opinion.

The report lays down procedures for tightening up the role of external assessors. The critics of the report believe that assessors are of great value but they are worried that the new procedures might be used as a censorship device, giving assessors a more powerful role.

More controversial are the suggestions which would strengthen the role of chairmen of the teams of academics producing courses. The report urges the academic board to "consciously consider proposals for the appointment of course team chairmen" with regard to three criteria: known academic competence in the relevant subject area; known efficiency in meeting course production deadlines; and awareness that the reputation of the university depends upon the degree to which the course meets the proposed criteria.

So that the chairman can be seen to be both responsible for the course and accountable for it, the report says the job should not in future be held by more than one person.

Critics say there is a danger of giving the chairman the job of watchdog, which is completely alien to the democratic way in which the university has always operated. They believe that the democracy of course teams is one of the Open University's distinctive contributions to higher education.

The academic board's reaction to the recommendations for more formal procedures was that they showed insufficient confidence in the quality of the academic staff.

The working group, which now numbers seven Open University staff, has been asked to bring a revised report to the board in November.

Sir Walter Perry denied this week that the report had been formally rejected by the board. He confirmed that the group had been expanded "to allow for a wider view on the matter".

Academics threaten walk-out

by Frances Gibb

A national one-day strike combined with a mass lobby of Parliament will be considered at an emergency meeting in London today of the Association of University Teachers. The action would be in support of the lecturers' pay claim now before the Government.

The proposal has been put forward by the executive in an attempt to appease feelings of resentment which have increased in the past three months. Lecturers in the 29,000-member association are demanding rectification of the pay anomaly which arose when they lost the second part of their arbitration award in 1975.

The executive recommends as a first step a national meeting of all university teachers in Central London early in November, coupled with a lobby of Parliament. That would necessarily entail the cancellation of lectures and tutorials for that day, it says. It would be backed by a campaign of letters and deputations to MPs with special attention paid to those in marginal constituencies.

In a pamphlet issued this week to all lecturers, the executive says: "Many of you will have observed with some concern the way in which colleges of education have been ruthlessly 'carved up' in recent months. We must be determined that we do not receive the same imperious and cavalier treatment in our pay."

Among other measures to be considered are withdrawal of labour by AUT members working for the Universities Central Council on Admissions (UCCA) so that the whole admissions system would grind to a halt. The proposal, from Lancaster University and backed by Bristol, is that a strike fund be set up to support those members.

If the pay claim is not met, Leicester urges that the AUT cease taking part in admissions procedures in 1978/79, which has immediate effect; withdraw from all Government committees; refuse to release examination results next summer; and consider strike action on undergraduate teaching in Autumn 1978.

Bedford College, London, also suggests they reserve the right not to admit or teach new students in 1978/79. Glasgow, which was behind the call for the emergency meeting, supports withdrawal from admission procedures, and other measures.

The pay claim which has been submitted to take effect from August 1 is for an award of between 12 and 16 per cent (depending on a lecturers' grade). This would bring the new levels to: lecturer £3,640-£7,759, senior lecturer/reader £7,495-£9,377, professor £9,570 (minimum), £11,296 average.

To this would be added the usual pay claim from October 1, which has not yet been formulated.

The anomaly arose in 1975 when the recommendations of the Arbitration Board on university teachers' pay could not be implemented because of the introduction of the pay policy. It stems from the disparity created between university and polytechnic lecturers' pay by the Houghton Award in December, 1974. Following this, the AUT settled for a seven per cent increase under phase one of the pay policy, provided there would be a complete review of university lecturers' pay.

In the light of the review, the Department of Education and Science made a two-part offer: the university teachers' pay increase was to be negotiated on the basis of Houghton comparability, and a cost-of-living increase for 1974-75 would be added to the amount agreed.

Negotiations on the first part broke down, and the issue went to arbitration. The board recommended a 24 per cent increase, including some threshold payments, and a cost-of-living increase.

But although all parties involved said that the scales agreed should operate from October, 1974, the Government would not allow the award to be backdated and said it must operate from October 1, 1975. That created the first anomaly.

On top of this, before the cost-of-living increase (the second part of the award) had been worked out, the Government introduced the £312 pay limit, which meant that lecturers received a 5 per cent increase for cost of living instead of an estimated 20 per cent. [illegible]

Leader, page 12

DES considers overseas students' body

by Sue Reid

A radical proposal for a standing commission to keep overseas student affairs in Britain under constant review is now being considered by the Government following months of confidential negotiations.

A major document outlining the plan for a complete rationalization of overseas students' policy was submitted this week to Mrs Williams, Secretary of State for Education and Science, by the United Kingdom Council for Overseas Student Affairs and the Council for Education in the Commonwealth. It was also circulated to the secretaries of state for the Home Office, Foreign and Commonwealth Office and the Ministry of Overseas Development.

The document argues for a powerful commission with a brief to make recommendations to Government on fee levels, hardship funds, course provision and regulations covering the 100,000 overseas students.

It would also collate information from universities, colleges and Government departments on the demand for education and training in Britain from abroad and the availability of places.

The commission should operate under a neutral chairman appointed [illegible] 20 or 30 members should include representatives of organizations concerned with overseas students, the Committee of Vice-Chancellors and Principals, the Committee of Directors of Polytechnics, the National Union of Students and the main teacher unions.

Representatives would be drawn from the three main political parties and participation by members of Government departments, including the DES, ODM, FCO and Department of Employment, is also mooted.

A smaller core group, to assist the chairman in formulating policy proposals for submission to the Government after discussion with the full commission, is proposed. This, say the UKCOSA and the CEC, would number about 10.

Mrs Williams and Mr Oakes, Minister of State for Higher Education, were told informally of the proposal during the summer. They have been asked to make a ruling about the commission concept before Parliament reassembles next month following consultations with other Government departments.

MPs press for more to live at home

by Peter Scott

A House of Commons committee has urged the Department of Education and Science to examine the case for increasing the number of home-based university students "as a matter of urgency".

In its ninth report, published today, the Public Accounts Committee adds that any proposed measures "to reduce the burden on public funds" should be introduced "expeditiously". It argues that the desirability of a student's freedom of choice must be weighed against the greater cost of maintaining a student living away from home.

The committee also casts a sceptical eye over the now popular practice of financing new student residences with commercial loans. It points out that this does not reduce the amount of real resources devoted to university building because the DES takes account of the higher rents charged in determining the level of student grants. Yet it allows universities to exceed the building programme notified to Parliament.

Universities can derive even less comfort from the committee's remarks on their recurrent grant. Far from urging a return to the quinquennial system, it proposes that any review should analyse not only current costs "but also provide the basis for the DES to make an appraisal of whether the current standards of provision are the most appropriate to meet essential present-day needs".

Essential needs is also the key phrase in discussing the universities' capital spending. In spite of the cutbacks of recent years the committee still considers it necessary to distinguish between the desirable and the essential projects.

On the rise in tuition fees the DES and the UGC are urged to monitor carefully its direct and indirect consequences. It is also suggested that the DES and the Treasury should consider whether it is possible to simplify the present confusion of grant arrangements to reduce administrative costs.

The overall verdict is stark. "It seems to us that, in the country's present financial circumstances, grants which have enabled the universities to maintain their expenditure per student at about the 1971-72 level in real terms cannot be regarded as having imposed an unfair burden on the university sector."

Committee of Public Accounts, Ninth Report, HMSO £3.60.

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CNAA gives Newcastle favourable report

by Fred Kavadler

Minor criticisms and major congratulations are the verdict of the CNAA in its second quinquennial report on Newcastle Polytechnic. The polytechnic is approved as a degree-giving body for the next five years but reservations are expressed about the weakness of its faculty structure and its "confusing" method of calculating staff loads and staff-to-student ratios.

The CNAA is critical of the slow progress made over the four years since its first report in 1971 in improving the academic organization. However, there is praise for the progress made during the period of discussion before the final CNAA assessment was drafted. The polytechnic is asked to report by January, 1979, on developments in strengthening the faculty structure.

The report comes at a time of difficulty for the polytechnic which has recently merged with the Northern Counties College of Education while being forced to reduce the number of teacher training classes. The CNAA is clearly sympathetic to the possibility of redundancies and offers to consider sympathetically new courses which could make use of staff who might otherwise face redundancy.

Criticism of the academic structure centres around the apparent weakness of the faculty boards which are often by-passed in favour of direct communication between the departments and the directorate.

Possible solutions to this problem including the appointment of permanent deans, had been proposed, but were opposed by the academic board, and a working party has been established to look at proposals for reorganization. The CNAA has asked for a mid-term report on what progress is made in this area.

The report commends the polytechnic for its efforts to encourage research and attract support from the research councils. There is also praise for close and continuing links with other institutions in the North East.

The CNAA visiting party were impressed by the students' union facilities and by the "mature and responsible attitude of the members of the students' union executives when they met". There were also congratulations for the accommodation officer and the union on their efforts to improve student accommodation.

Finally, the CNAA says it was impressed with the "comprehensive documentation" which the polytechnic had prepared for its visiting party, in particular its concise style.

Working women are still less equal

by Frances Gibb

Women now account for well over one third of all graduates entering the professions, according to Lady Howe, deputy chairman of the Equal Opportunities Commission.

She told the Fawcett Society's North Eastern regional conference that women now represented more than half the graduates entering personnel management (61.7 per cent); 31.9 per cent entering banking and insurance; 32 per cent entering the legal profession and 22.7 per cent entering accountancy and finance.

Women now made up 41 per cent of the working population of Britain. Labour force projections showed that from 1971 to 1986 the proportion of married women working would rise by 22.9 per cent by 1981 and by 32.9 per cent by 1986, compared with a growth rate of only 4.3 per cent for men.

But she added that the movement of more women into executive and management positions did not reflect sufficiently increased participation. Half of all working women were still in low-paid jobs.

Between December 1976 and February 1977 only one woman had been appointed to sit on any of the three education committees set up by the Department of Education and Science. The commission had asked government departments for regular reports on their progress in appointing women to senior jobs and was monitoring their replies.

Universities and other employers should use their rights under the Sex Discrimination Act to increase the number of women in the academic world, Miss Betty Lockwood, chairman of the EOC, said this week.

She told the University Personnel Administrators' Conference at Cambridge that it was often argued that the promotion of women would mean a lowering in standards. It was just an excuse to prevent women getting on, she said.

She called for an explicit commitment to equality of opportunity in all personnel practices in both academic and non-academic recruitment, hiring, promotion, termination of employment, conditions of work, salaries and fringe benefits.

Teething troubles hit SSRC initiatives board

The main emphasis in the report of the Social Science Research Council this year is on its initiatives in the fields of pollution, population, health, energy and the functioning of government.

The year 1976-77 is the first in which the work of the SSRC's research initiatives board can be judged, it says. The report admits there have been teething troubles in the division between research initiatives, grants and postgraduate training.

The SSRC has obligations both to fundamental academic research and to solving social, economic and political problems, the report says. "There is no fundamental conflict between these two objectives although, of course, financial constraints mean that difficult choices have to be made."

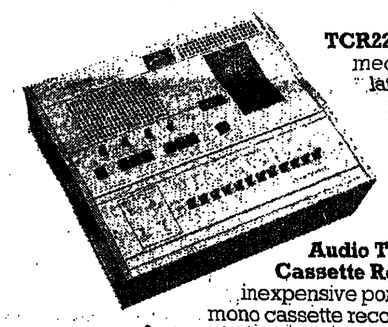
Part of the difficulty in 1976-77 has been in successfully applying to the council for grants. The rate of success measured by amount applied for and amount awarded has fallen to an unprecedented low of 22 per cent. Last year it was 37 per cent and in 1974-75 44 per cent.

It was easier to apply for a small grant, below £6,000 to £8,000. However, the council now feels little can be done for this and is raising the ceiling for "small grants" scheme to £10,000.

The annual report contains a list of SSRC staff and its various committees.

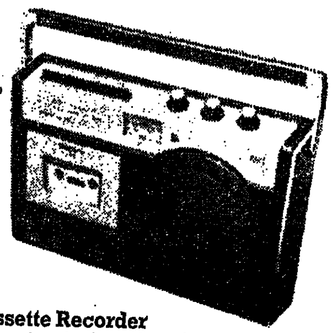
Report of the SSRC, April 1976-March 1977, HMSO £1.15.

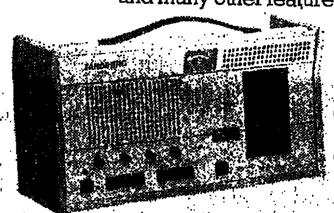
New Tandberg Educational products.



TCR221 Group Trainer Specially designed for small- or medium-sized student groups (up to 24) for teaching languages, remedial subjects, drama etc. A special mobile cassette recorder can be added to create a compact 6th form AAC Language Laboratory.

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Combined study routes planned

The Council for National Academic Awards is planning to alter its regulations to allow students to take "agreed" courses to follow a combination of full-time and part-time study.

Dr Edwin Kerr, chief officer of the CNAA, told a meeting of the Association for Recurrent Education last week that the proposal for a change in the regulations was likely to be approved by the full council during the next academic year.

If the new plan was approved it will allow polytechnics and colleges to put forward courses for validation with a choice of study routes and is likely to bolster the number of mature students on CNAA programmes.

Dr Kerr told the ARE that only 4 per cent of students were recently joining CNAA courses without formal entrance requirements. But as an indication of the council's growing awareness of the need to cater for mature applicants and those without formal qualifications a new advisory booklet for mature students hoping to join CNAA programmes is to be published before the end of the year.

Tories table 'Reds in college' motion

A full-scale inquiry into the influence of the Communist Party in all aspects of education is called for in a motion for the Conservative Party annual conference in Blackpool next month.

The Tottenham constituency association has demanded that a Conservative minister of education conduct a thorough investigation into the influence of the Communist Party "in all its various forms in all aspects of education, teaching publishing, administration and further and higher education".

The motion is one of four tabled on education, making it the fourth most important issue as the conference. It is beaten in the number of motions only by employment and industry, economic policy and reconstruction, and law and order. The education motion which has been selected for debate is not on higher or further education, but all the rest stand a chance of being selected by ballot as an extra topic for debate.

Among other higher education issues are the 16-19 age group, teacher education and student grants.

Isis may fold

The Oxford University student magazine *Isis* may cease publication if its publishing company said last week the magazine could not be supported if strict trade union procedures were applied in its production. Until recently the printers allowed students to do some production work.

Sir John's final view from top is gloomy

Sir John Habakkuk, retiring vice-chancellor of Oxford University, took a gloomy view of the prospects for the university system as a whole when he delivered his farewell speech in Congregation on Wednesday. He is succeeded, at the end of his four-year tenure of office, by the Warden of Merton, Sir Rex Richards.

Sir John, who has been this year's chairman of the Committee of Vice-Chancellors and Principals, warned that as the implications of recent Government announcements became clearer, universities might find they had lost more than the quinquennial system and that there had been a quite fundamental change in approach to university finance.

His opinions, he said, arose from signs not simply of an intention by the Government to reduce the amount of cash it would make available per students, but of a switch in the relation between numbers and cash.

Five years ago, the White Paper *—Education; a Framework for Expansion—*endorsed the general principles of the Robbins Report. That principle was the basis of the estimate then made of higher education places which would be needed in the future, and the figure arrived at was then costed.

This year the sequence appeared to be different; the provisional indication of the grant had come first and then the universities had been told what number of students that grant should provide for.

The University Grants Committee had said its present judgment was that the greatest number for which the provisional grant for 1980-81 could be regarded as adequate was about 290,000.

It seemed as if financial stringency had been reinforced by a view of how best to deal with the problems of the bulge. The number of young people of university age would reach a peak during the 1980s and then fall substantially. It was difficult to resist the conclusion that it was the Government's intention to deal with the problems of this period of peak demand by "tunnelling through" the peak into the valley beyond.

The policy seemed to be to limit provision of staff, equipment and accommodation in higher education until the assumed fall in demand came to the rescue of the system.

In addition, it was clear that in higher and further education during the period of peak demand, staff/student ratios would be less generous.

Sir John said it was highly questionable whether in fact there would be a decline in demand for university places in the later 1980s. The number of 18-year-olds would remain above the current number until 1990 or 1991. After that it would decline sharply, but the fall in the birth-rate had been least marked in those social groups which contributed a disproportionately large number of university students.

The differences were marked. The total number of births in England and Wales fell by 24 per cent from 1970 to 1975, but the births in social groups I and II, which provided about 50 per cent of university entrants in 1974, fell by only 4 per cent. The relative importance of these groups in the population was increasing as a result of changes in occupational structure.

So far as the universities were concerned, they might be tunnelling not through a hill, but into a plateau, and the tunnel might be very long.

At present there were about 272,500 students in British universities. If the number to be financed in 1980-81 was 290,000, this allowed for a growth of only 17,500 in four years, implying an entry rate lower than the growth rate of the relevant age group. In fact a substantial part of the growth in total university numbers would take place in the coming academic year.

It was no doubt the Government's intention that places for home students should be provided by cutting back the number of overseas students, but even so, the prospects for the home-based young adults in the bulge were worse than those of their predecessors.

Sir John included in his speech a plea for continued confidence in the University Grants Committee.

"In some quarters it has been suggested that its functions would be better performed by the Committee of Vice-Chancellors and Principals.

"It has even been urged that both bodies should be abolished. This is entertaining but dangerous. We must do nothing to damage the confidence which the university community has in the UGC."

Oxford drain on reserves 'cannot go on'

Oxford University has drawn on its reserves to support its present level of activity, a process which cannot continue indefinitely, the annual report states.

The report, published today, says that Government assumptions about pay and price increases for which allowance was made in cash grants to universities, showed that total support for universities from public funds, would fall in real terms in 1977-78 by about 1 per cent.

Oxford's experience was that the provision which the University Grants Committee had been able to make showed a reduction, assuming the pay and price increases allowed for by the Government in the total grant, of about 3 per cent.

Uncertainty remained on one critical question: whether and to what extent the Government might be able to compensate universities if increases in prices and pay, which accounted for 70 per cent of Oxford's expenditure, exceeded the allowance for inflation included in the cash limit grants already announced.

The report also says that the provisional figures for the total universities' grant for 1978-79, 1979-80, and 1980-81 offered little comfort.

The 1978-9 figure was actually less in total than that for 1977-78, while the slight rise indicated after that year was less than proportionate to the forecast increase in student numbers. The decline in funds per student, so significant a feature in recent years, was clearly expected to continue.

The report expresses Oxford's regret at having to increase student fees as a result of a Government decision, and says the university has set aside up to £150,000 for the remission of fees in the hope of ensuring that those students already studying who began their courses with very different expectations about fees, were able to complete them without undue hardship.

The effect of the great increases in fees on the future intake both of overseas students and the significant number of home students who for various reasons did not qualify for support from public funds, remained to be seen.

TUC urged to press for more union influence at Fircroft

Plans to give trade unions an important part in the running of Fircroft College, Birmingham, will be put to the TUC's education committee next month.

The proposals, which would mean a switch in emphasis in the college curriculum to give greater weight to trade union and labour studies, are causing concern among those who want to preserve the college's former liberal studies course.

Fircroft, which ran a one-year residential course in liberal studies for mature students, has been closed for two years after students banned the principal and started running their own education programme.

A Department of Education and Science inquiry report later recommended that the principal and four tutors be sacked and the college reopened.

Negotiations between the TUC and the college trustees have been going on for a year and are now well advanced. The main point of difference which has not yet been resolved is the amount of TUC representation on the governing body.

The TUC negotiators want a simple majority of trade unionists but some of the trustees feel the TUC should not have more than 40 per cent.

The proposals for courses worked out by the trustees and the TUC include a one-year residential course in trade union and labour studies based on the previous liberal studies course, a day-release course for shop stewards and a three-year sandwich course with students doing a term at Fircroft each year.

Mr Roy Jackson, head of the TUC's education department, said this week that the proposals would not turn Fircroft into a TUC college, except in so far as they recognized that most of those coming to Fircroft were trade unionists.

"The curriculum would be more closely geared to the interests of Fircroft students. We have been rethinking the course along the lines of similar courses at Ruskin and the London School of Economics."

The college would not be training people for the trade union movement but would be a centre of workers' education specializing in trade union and labour studies.

It is hoped that the Department of Education and Science will pay much of the college's running costs as it has in the past.

The proposals are being regarded with suspicion in some quarters. Members of the old Fircrofters' guild who have been involved in discussions about the college's future are anxious that TUC involvement should not fundamentally change the character of the one-year residential liberal studies course.

Dr Brian Nicol, the guild's press officer, said: "We want to ensure that the syllabus is not geared particularly to trade union needs. It should be a liberal studies course in the widest possible sense.

"We want to ensure that entry is open to everyone whether or not they are a trade unionist. If the trade unionists have a majority on the governors we are going to be suspicious."

A consultative meeting of people in adult education, former Fircroft students, the trustees and other interested parties is expected to be held soon.

Geologists get own institution

Geologists have their own professional organization at last. The Institution of Geologists aims to "advance the profession and practice of geology by shaping opinion in Whitehall, local government, industry and in the EEC and further afield".

The new body will also promote the status of Britain's 4,000 professional geologists, in terms of their education, training, pay and professional standards.

The institution has been created out of the Association for the Promotion of an Institution of Professional Geologists, which claims a membership of 1,000. The first secretary, Professor J. L. Knill, professor of engineering geology at Imperial College, has been the moving spirit during the five years it has taken to set up the new organization.

It will be based in Burlington House, Piccadilly, in the apartments of the Geological Society of London, the premier learned society for geology in the United Kingdom, but provincial members will be served by regional groups and local meetings.

Colleges 'should charge' for in-service courses

Colleges of education should charge fees for in-service training, Mr Hugh Harding, a former undersecretary of state at the Department of Education and Science has suggested.

Mr Harding, who was in charge of in-service education at the DES, was speaking at a conference organized by the in-service section of the National Association of Teachers in Further and Higher Education at Digby Stuart College, now part of the Roehampton Institute of Higher Education.

He said fee-paying would bring an element of rigour in that colleges could demonstrate that they had collected fee income.

In-service education in the past had gone to too small a proportion of the teaching force and he wondered whether the notion of "personal entitlement" tended to work in this direction.

Penalties for Essex sit-in amended

Essex University Appeals Committee has quashed expulsion orders on five students found guilty of misconduct earlier in the year when they took part in an occupation at the campus as part of a nationwide protest over increases in tuition fees.

Instead, three students have been banned for the next academic year and a fourth for two years. Three postgraduates have been banned for one or two years starting from January.

All 66 students found guilty by the special disciplinary committee which was set up after the incidents have been fined amounts ranging from £8 to £192. The new verdicts were unanimous.

In his first interview since taking office Professor Geoffrey Allen, SRC chairman, talks to Clive Cookson

Government should leave science budget alone

With the Science Research Council likely to be £25m short of the resources needed to carry out its responsibilities over the next four years, according to last week's annual report, Professor Geoffrey Allen, who steps into the top job at the SRC next week, sees his main priority as persuading the Government to stop hacking away at the science budget.

Overall policy within the SRC is unlikely to change direction dramatically under Professor Allen, who is a friend and admirer of the retiring chairman, Sir Sam Edwards, and his predecessor, Sir Brian Flowers. The three men were closely associated during the 1950s and 1960s at Manchester University, where Allen was professor of chemical physics, Flowers was Langworthy professor of physics, and Edwards was professor of theoretical physics.

Polymers became the main research interest of both Sir Sam and Professor Allen, and they collaborated academically, Edwards producing the theories and Allen coming up with experiments to test them.

Brian Flowers, together with Professor Geoffrey Gee, made Allen aware, he says, that academe could not produce the right working atmosphere for the scientist. Industry and government—or the "private and public sectors" as Professor Allen calls them—had to be involved too.

He agreed to be chairman of the SRC, as he accepted the chairmanship of its engineering board in 1976, for the satisfaction of "working at the confluence of academe and the private and public sectors".

Sir Sam painted an extremely bleak picture of the future of basic scientific research in Britain at his farewell press conference last week, in the light of current Government plans to lop ten per cent off the SRC budget between 1976/77 and 1981/82. Major projects under way at the moment, such as the spallation neutron source at the SRC's Rutherford Laboratory, were only financially feasible because existing equipment was being cannibalized, and when they were finished the SRC would be "pretty well broke".

Professor Allen believes his predecessor's pessimism is justified if you go by the current official estimates of the science vote in future years. But, he says, "I am hopeful that because



the academic community with the help of industry and the appropriate departments of state have come forward with a strong programme, the Government will be able to find more money for us."

If the economy picks up, he thinks he will be in an excellent position to extract more funds for science. All four SRC boards—nuclear physics, astronomy and space, engineering and general science—have programmes "appropriate to the future needs of the country".

Professor Allen recognizes that the balance between SRC funding of expensive central facilities and small grants to individual scientists in university departments is going to be a highly sensitive issue during his four-year term as chairman. For the so-called "little sciences"—as opposed to the big sciences of high energy physics, astronomy and space research—now require multi-million pound facilities like the new laser centre and neutron source at the Rutherford Laboratory.

Another major topic for debate will be the dual support system for university research, under which the University Grants Committee provides and pays for a "well-found laboratory" and its staff, and SRC grants cover the extra costs of specific research programme. Four years of financial cuts have made it difficult for the UGC to deliver its side of the bargain.

"The dual support system is under great strain now", says Professor Allen. "We are going to have to watch out that our university laboratories remain competitive with their international rivals."

Professor Allen became closely associated with industry in the course of his academic career—between 1970 and 1974 he worked half time at Manchester University and half time at the ICI Corporate Laboratory in Runcorn—and he has pushed collaborative schemes with industry strongly during his time on various SRC committees and the engineering board. Therefore we can expect further expansion of postgraduate training programmes such as Cooperative Awards in Science and Engineering (CASE), Total Technology and teaching companies over the coming years.

Professor Allen, who is 48, is not looking forward to the publicity his new post will bring him and he appears to agree with the comment Sam Edwards made four years ago when The THES asked him about the prospect of dealing with journalists: "It's a necessary evil." But he recognizes that a public body spending £145m a year has to explain what it is doing to the outside world, and he is clearly prepared to be helpful to the media.

He does not know exactly how or why he was chosen as chairman — indeed the secrecy and mystery with which posts such as his are filled in the UK has been a target for criticism recently.

He is unwilling to be drawn into the controversy, though he does say he would be quite happy if the job was advertised when the time comes to find his successor. "I would just hope that the people responsible would not be bound to choose from those who answered the advertisement and would still look round more widely."

Running the SRC will be a full-time occupation, but Professor Allen believes it is vital for him to remain active scientifically, as Sir Sam has. Therefore he intends not only to keep in touch with his research group at Imperial College, where he became professor of chemical technology in 1976, but also to give a dozen or so undergraduate lectures a year. "I love teaching", he said.

CONFERENCES

Tim Albert reports on the adult education and the arts conference at Nottingham University

Gulbenkian offers plan to bolster state of art

A five-point plan to improve the state of both the arts and adult education in Britain was put forward at the end of the conference by the director of the Calouste Gulbenkian Foundation.

The programme, which includes an updated Russell report, was suggested by Mr Peter Brinson, who said afterwards that the Gulbenkian Foundation was prepared to put time into the scheme—but would not say how much.

His first proposal was for talks to be held with the Arts Council and other interested adult education bodies to see whether they could set up a study to update the findings of the Russell report. "We would be aiming to find out what is going on in a practical way, what could go on with a better use of existing resources and also to demonstrate the possibility and the methods of partnership as one aspect of a new way forward", he said.

His second point was to develop a network of local working parties across Britain. "We cannot lay down how they should be started", he said, "but they might be stimulated by local and regional conferences." He added that he thought the Gulbenkian Foundation "might be willing to share the costs if that would help".

Thirdly, he advocated some form of central coordination: "I am reluctant ever to set up new bodies," he said. "But I think I know where it could be located. If nothing else comes up we shall make coordination one of our concerns."

Mr Brinston then put forward the notion of an Arts for All year campaign which could be launched by a national conference in a year's time and coordinated by a special unit implemented in the Arts Council. "The arts and adult education are both desperately threatened. We have to fight back and do it in the national context."

Finally, he suggested the notion of Arts Priority Areas which could draw upon funds already provided by the government for priority areas.

Arts Council looks ahead

The Arts Council is planning to set up an education department when financial stringency eases, Mr Roy Shaw, secretary general of the Arts Council, has said. "But until then we will have to do our best to develop cooperation with educational organizations."

Mr Shaw said promoters in both areas had a great deal to learn from each other, and this applied particularly to those working on the front line, "those who work in community adult education and in community arts".

The Arts Council, he said, had written into its charter a duty "to develop and improve the knowledge, understanding and practice of the arts". The 1972 Local Government Act used the same words to describe the role which local authorities may play in the arts.

"This does not mean, however, that the Arts Council should become a huge national organization for the direct provision of arts education. Its charter also says that it should cooperate with other bodies to achieve its main aims.

"This means, then, that the Arts Council, and by implication the regional arts associations, should liaise with adult education organizations to achieve the twin purposes of diffusing the arts throughout the country and developing the knowledge and understanding of them."

INTENSIVE

STUDY VISITS

TO FRANCE

AND GERMANY

If you are involved with school administration, modern language teaching or links and exchanges, you are likely to gain considerable benefit and interest from the Central Bureau's scheme for Intensive Study Visits to France and Germany. This scheme offers heads of schools and colleges, heads of departments, teachers with responsibility for links and exchanges and modern language advisors a subsidised visit of one, two or four weeks. Return rail/sea fares are paid and a grant of £44 a week for both France and Germany is made towards subsistence. (L.e.a.s or sponsoring establishments have been recommended to 'top up' this grant where appropriate.

The scheme has the following aims and advantages:

it provides an opportunity for a detailed look at an equivalent establishment or district and for an objective assessment of how the teaching of modern languages is organised and administered in a different environment;

it strengthens the links which have already been established between France and/or Germany and the UK at departmental, institutional and l.e.a. level;

it helps to explore and evaluate the advantages of teacher exchanges and gauge the long-term effects which these may have on individual teaching attitudes and methods;

it encourages reciprocal visits and provides information and comment, possibly through meetings of returned bursars, about the further development of exchange schemes with other European countries.

Application forms can be obtained from the Central Bureau for Educational Visits and Exchanges, 43 Dorset Street, London, W1H 3FN, or 3 Brunstfield Crescent, Edinburgh, EH10 4HD. Closing date for Spring Term 1978 visits—31st October, 1977. Applications will still be considered for Autumn Term 1977 visits.

Thring urges Hippocratic oath for engineers

Engineers and applied scientists should have to take their own version of an Hippocratic oath. Professor Meredith Thring, head of the department of mechanical engineering at Queen Mary's College, London, told a conference on alternative paths for planning held at Trent polytechnic. "The work of the technologist affects human life much more than that of the doctor."

Under the oath, a draft copy of which Professor Thring showed the meeting, the scientist or engineer would promise to apply his professional skills only to projects "which, after conscientious examination, he believes to contribute to the goal of coexistence of all human beings in peace, human dignity, and self-fulfilment".

The vow acknowledges that the goal requires an adequate supply of good food, air, water, clothing and housing, access to natural and man-made beauty, education, and opportunities for everybody to work out their objectives and to develop creativeness and skill.

The vow concludes: "I vow to struggle through my work to minimise danger, noise, strain or invasion of privacy, pollution of earth, air and water, destruction of natural beauty, mineral resources and wild life."

Professor Thring was speaking on "the creative society in the 21st century". He was optimistic about the future, and that there was a solution—even if for the moment it was not politically acceptable.

"It is not too late to prevent this civilization going the way that all the others have gone, but in another 15 years it will be too late, of that I have no doubt at all.

"There is a way up, but it means climbing a series of professional ladders. It means a human technology in which machines are the servants of man instead of his master".

He said population would level out if all nations had a decent standar duf living. Energy and the food supplies could be met if the richer nations cut their needs. "There is an optimum standard of living and we are over the top", he said.

Greater productivity ultimately led to unemployment: "The answer to this of course is very simple. Instead of saying we will pay people dole for doing nothing, we say we will pay them dole for doing a worthwhile job."

He also suggested a national service for young people: "Not square-bashing, of course, but tidying up the mess of the industrial revolution for Britain.

"The only way out of the vicious circle of a democracy voting for its own destruction is to put people's emotional brain (BRAIN) into caring for other people. We should also educate people to have a creative hobby with their hands."

The conference was organized by the department of town and country planning at Trent Polytechnic. Other speakers included Mr Edward Goldsmith, editor of *The Ecologist*, Mr Gerald Foley, of the Architectural Association School of Architecture, and Mr Colin Ward, from the Town and Country Planning Association.

Lecturers fail to press need for languages

Modern language lecturers have failed to press the need for languages in business, the professions and on technician courses, a George Tolley, director of Shoreditch City Polytechnic has claimed.

He told the Standing Conference of Heads of Modern Languages in polytechnics and other colleges (SCHML) that there had been too little "puny effort" towards assessing the relationship between teachers performance and facility in languages.

"You have not developed a trained effort to identify or train up careers outside the traditional paths of teaching, research and highest level of interpreting," he said. The onus was on the language departments to put more positive lead in stating the utility of languages in career opportunities.

He urged the setting up of six project teams from a number of polytechnic departments, perhaps on a regional basis, which would make contacts with employers. There should be liaison officers appointed to work with the Chambers of Commerce and Trades Associations.

On this astringent note Dr Tolley launched the three-day conference at Sheffield Polytechnic on the state of foreign languages. It was the second to be organized by SCHML and was attended by over 75 representatives of polytechnics and colleges, the Department of Education and Science and other interested bodies.

On student standards, Dr R. G. Murray, principal lecturer in Cambridgeshire College of Arts and Technology, argued that in courses where language was combined with, for instance, social science, it was common to find that language students could not cope with the other discipline.

There was no necessary correlation between mimetic skill and intellectual ability, he said. "You have to face the unpalatable fact that some of your students who are undoubtedly competent linguists are simply not equipped to deal with abstract concepts and ideas."

Mr I. F. Ariza, of Manchester Polytechnic, said that after one year or the polytechnic, the students he had taught Spanish from scratch were far better than the post-A-level Spanish students. More languages should be taken *ab initio* at polytechnics, he said.

Professor R. B. Tilford, from Bradford University, suggested that political or economic texts might be studied instead of literature. The language looked at might be that of the shop floor, or the professions. A placement abroad or visits of course could take the form of work in a German legal practice, for instance, or in a French bank.

A drastic solution was put forward by Mr R. Wesley, from Sheffield City Polytechnic, he envisaged the end of language departments. Instead, languages should be offered in polytechnics as part of other degrees. There ould at the same time be a national language school *for those getting to study language in their own right.*

In general, though, there was a strong feeling in favour of more part-time courses in languages. Mr A. M. Ridler, from the Council for National Academic Awards told the council had set up a working party which was looking at it.

It raised problems which did not exist with other subjects, such as the level of competence that could be expected from students who had only studied part-time. She suggested also that it could provide a link with industry, in that industry might be prepared to sponsor employees to study part-time.

On staff development, the other main issue, it was proposed that a national level, there should be coordinated research by SCHML into matters such as the hours needed for the study of a language. Methodology was another much-neglected area.

Finally, there was the question which many felt to be the crux of the matter, or at least a major one. An alternative A-level syllabus—language-based with little or no literary element—was strongly supported.

Palestine talks for Blackpool

Palestinian students in Britain and supporters of their cause for independence are to submit a motion to the National Union of Students annual conference at Blackpool in December pressing for the issue to be debated there and officially backed by the union.

Meanwhile a national campaign to propagate the aims of the Palestine Liberation Organization was to be set up at a London meeting at which Palestinian students in this country, political parties, trade unions and student will be invited to send delegates.

Thees moves to win the Palestinian tudents' cause a wider airing were decided at a two-day conference at Bangor University College earlier this month arranged by the General Union of Palestinian EStudents and the Bangor University College student union, which has long declared its support for PLO's aims and has accused the NUS of being the only student union in Europe with no policy on Palestine or the Middle East.

Following growing student pressure in recent months over the issue, a five-man NUS deputation last month visited Palestine to examine the situation. They went out at the invitation of he Union of Palestinian Students.



Darabuccas from Turkey and the Middle East find a soul mate at the Early Musical Instrument Exhibition at the New Horticultural Hall, London.

Union leaders often alienate students—NUS president

Too often student union leaders alienate students by trying to impose their narrow politics on them, Miss Sue Slipman, president of the National Union of Students, said last week.

Speaking at the NUS training conference for student union officers at Liverpool University, she said that such people subverted the functions of student unions and forgot the reason those unions were founded—to serve the membership.

"If you were an ordinary student in such an institution I would tell you to fight back and get yourselves a leader who will work on your behalf."

The image of the student politician as the friendly superstar of the union had to cease. "These days we need to know what we are talking about rather than dramatically spout slogans."

Miss Slipman said that student unions existed for all students whatever their political or religious beliefs. No student union had a mandate to deny the inalienable right of its members.

"In recent debates the concept of banning rights to certain sections of members of unions has been raised. The NUS wants to make it very clear that we regard this as totally unacceptable and will fight this attitude wherever it appears."

On the other hand

Campus creepies

While in Maine University Stephen King decided he wanted to be a horror writer but his mother insisted that he first gained a secure teaching qualification to fall back on. However, when he qualified, there were no teaching posts available and so he had to write to earn his living.

University proved a climacteric (see below) and one of his early stories, "Strawberry Spring", which is based on his time as a student there will be published by Doubleday in January in a collection entitled *Nightshift*. When you hear that one o this three best sellers so far is the horror novel *Carrie*, which later became a profitable film, you will realize that his mother pretty soon accepted the situation.

Now 30, large and a shade ungainly, he admits that he frightens himself when writing and finds horror in the most mundane situations. He talked in a tea room and I got the feeling that the noise of his dark, rather expressionless eyes looked at me that I would probably pitch up strangled in a fictional tea urn some time.

He said that although his new novel The Shining has a print run of three million copies down before the film has been made, he does not write horror for money, but views it as an altogether more literary exercise. Although horror has become commercial and devalued, it has a creditable literary history stretching back through Bram Stoker and Poe to the Bible and Beowulf.

He talked in an easy conversational way about mutilations and cold hands touching you in the dark. "All my stories grow from the atmosphere of a place. For instance, my university in the winter had a gloomy, damp, isolated, middle of nowhere feel. Out of that grew a sort of Jack the Ripper story in which a stranger assaults, murders and mutilates female students and members of staff. It goes through the mlike a dose of salts. A campus is the perfect place for horror." . . . As if UCCA did not have enough trouble filling empty places.

OEDear

The above item, you will notice, contains the word "climacteric". As soon as it was down on paper I knew that 90 per cent of readers—even readers of this column who are among the most sophisticated in the world will not know what that means. I only know because I looked it up for a crossword yesterday.

Now this poses the daily dilemma of sensitive journalists: should they, out of duty to the language, exercise words that have grown stiff with disuse or should they, out of duty to the reader, aim for the simplest common denominator?

I opted for the latter and deleted "climacteric", replacing it with the explanatory "critical period in a man's life". I then looked the word up in the complete Oxford English Dictionary and started to feel miserable as his history of usage unfurled.

There was this heroic little noun that started out way back in Attic Greek and manfully outlived the glory that was Athens, the grandour that was Rome and the invincibility that was Tottenham Hotspur. It was whispered by Sophocles in the school room, mashed by Aristophanes in the bar; it was good enough for Pliny and Andrew Marvell used it twice. Southey used it in a letter and Farrar found it applicable to Christ. Dryden and Addison used it, Southey used it again and somebody called Morgan found it relevant in connexion with Algeria.

For Vaughan, Butler and Freke W. it was the mot juste. Tom Fuller, Selden Hakewell and Mather it captured precise meaning. Southey, by now clearly obsessed, used it for a third time. Fielding used it in Joseph Andrews, Pope in his Letter to Arbuthnot, Byron in Don Juan, AND I CROSSED IT OUT.

Voices, perhaps those of Sophocles, Byron and the rest, rose insistently to my mind: "Come off it, pudding-brain. What right have you, who feed parking meters and scraped through English O level only after severe cramming, to put a line through 2,000 years of mental development?"

Shamed, I reinstated the word even at the risk of you all thinking it a reference to the weather. I tell you this just to show much care and thought goes into this column. It is not just dashed off between opening hours, you know.



Although I am still available, Dr A. H. Halsey, head of the department of social administration at Oxford, has been chosen to replace Lord Boyle who declined to deliver the next set of Raith lectures. He is to speak on changes that have taken place in Britain, which is alright but will not capture the public imagination as much as my own projected Reith lectures on "Keep fit". Some people have expressed doubts that I could spin these out for the required number of instalments. May I just say publicly that, what with copious practical domestications and pauses to get my breath back, I do not see this as a major difficulty.

Dons wave play on



Stoppard scores again.

Tom Stoppard, left, has been at it again. Philosophers and academics mused in large numbers through his latest play shown on television last week. A colleague and hardened Stoppard-watcher reports on it and reactions to it:

Tom Stoppard likes philosophers, as characters in his plays, and after last week's BBC2 production of his Professional Foul philosophers, it seems, like him.

Several enthused about the play which deals with a very painful moral dilemma confronting a Cambridge professor of ethics during a visit to Prague for a philosophy congress. It was apparently sparked off by the hardships suffered by Eastern bloc dissidents, particularly those connected with the Czechoslovak "Charter 77" document.

The philosophy dons I spoke to voted the play a success and Stoppard the playwright most likely to deliver the goods about their subject, a talent first manifested in *Jumpers*. However, they did reserve the right to superiority of practitioners whose preserve is being dealt with by an amateur. "He's very good", one said. "Perhaps not quite so good at philosophy itself but terribly good at philosophers—he gets them beautifully."

It has, however, been suggested that the contrast made between the Cambridge professor, who is old-school don embodying old-school values and ways of behaving, and the young chaps surrounding him—most portrayed as somewhat inferior in manners and behaviour and identified as redbrick or modern—Stoppard might have offended redbrick/modern viewers. It was interesting that those philosophers who least believed this merited serious consideration had Oxbridge degrees.

Evening all

Evening classes are upon us once more and it is time for consumers to read all the pamphlets, enrol and attend the first meeting before giving it up as a bad job. It is inevitable with evening classes that, although held only once a week, they are invariably on the one night that clashes with everything else.

My own experience in this line has been none too encouraging. The year before last I attended the first meeting and subsequently gave up a course on *The Making of Modern China*, as it was portrayed on the advertising posters. Two of the four class members were rather tweedy-looking ladies of a certain age and tonnage who, when asked why they had chosen this course, replied "because we want something to put our geraniums in".

Last year brought no real improvement because I wanted to learn to play the tenor banjo for New Orleans jazz purposes and so went along to a course entitled "Jazz improvization". This turned out to be not group attacks on the St Louis Blues, but a form of dance class which used to be known as "Kallisthenics for office workers" but was changed because people were never entirely sure what that was. One of life's more exquisite agonies is to stand clutching a banjo in a room full of overweight women in leotards moving emotively to the recorded sounds of Dudu Pukwana.

This year again I am once more trying to coax the inner London Education Authority into teaching me to play the banjo. They are none too keen and will not make any provision unless I can find 14 others who also want to learn. This strikes me as doubly surprising since, if I cared to go to Lewisham I could not only learn to play the mandolin, but also how to make one.

The case, as I have explained to ILEA, is fairly urgent: after two years teaching myself to play from a book, I can now open the case, lift out the instrument, clutch it and smile weakly at the audience. It would not justify a concert tour and I am extremely depressed about the whole thing. If 13 of my readers, assuming that I have that many, could bring themselves to learn the banjo just to help me out of a spot I would be pleased to hear from them before October 4.

Speculation continues about the next Master of Trinity, in succession to Lord Butler. Cambridge gossip has (for once) been consistent in backing two names: the Nobel Prize-winning scientists, Sir Andrew Huxley and Sir Alan Hodgkin. One of the curiosities of the affair is that it is a Crown appointment, which means that the announcement will likely early in the New Year; will be made through the Prime Minister's office. Some Trinity fellows are surprised and concerned that, below the most senior college levels, there has been virtually no consultation about the appointment. This is a Trinity tradition. "I was on the college council when Lord Butler was appointed", remarked one fellow. "And the first I heard of it was on the radio."

British scene viewed from down under



James Porter

One intriguing aspect of being in Australia for a period of time is the opportunity it gives to get a new perspective on the educational scene back in Britain.

Australian colleagues, red-eyed from the harrowing experience of viewing the decimation of their team on the cricket field, may, of course, have been taking rather less interest than usual in educational matters. However, the two items which caught their attention during the short, warm, Australian winter were the publication of the Green Paper and the "think ank's" assault on the Irish BCTTouncil.

The Green Paper, coming out in the Department of Education and Science's favourite month of July, has few hard proposals but many constructive and realistic pointers to the future. Unlike the Central Policy Review Staff, the department prefers major reconstruction to demolition. Some of the more trenchant criticisms of the education service are found to be justified; others, I think, are not supported by the evidence.

The department also notes the major achievements of British education, which are often more acknowledged overseas than within the United Kingdom. The tone of the Green Paper is reflective, and the style is Elizabeth House planissimo.

Some of the most significant pointers to the future relate, of course, to the diplomatic but firm support for the creation of a core curriculum, which will need to be related to the establishment of an agreed means of assessment for schools and for individual pupils. There is, however, strong rejection of the idea that rigid and uniform national tests should be applied to all children at certain ages.

Much greater liaison is called for between institutions of higher education and the schools. It is unfortunate that the report's concentration upon education in schools prevented it from underlining the need for substantial reappraisal of the curriculum of post-school education. The recent response of the National Union of Students to the Green Paper, with its emphasis upon the opportunity for vocational experience and fieldwork within the normal education course, should be taken seriously.

Acknowledgment of the need to develop personal and social skills, independence in learning and a genuine understanding of the social and economic conditions, should increasingly form a part of the education which all teachers receive.

In fact, the department once more expresses a sentiment which echoes throughout educational reports since the nineteenth century: that "any plans for bringing about improvements in the school curriculum and maintaining or raising standards will depend for their success . . . on the full understanding and support of the teaching profession, the quality of its members and their adaptability to the changing demands made on them".

This statement precedes one of the more imaginative sections in the consultative document. In it the writers recognize the importance of a coherent approach in which policies for "initial education and training of teachers, induction, in-service training and other aspects of the deployment and career development of teachers" will have to combine. Thus, the Secretary of State makes it clear that there must be a graduate entry into the teaching profession in 1979 or 1980.

However, this important achievement must go hand-in-hand with the recruitment of applicants who have had some employment outside the world of education and who will bring experience and maturity to their education and training as teachers.

With reward to initial training, one of the most vital moves is the proposal "to foster the growth of a network of centres of scholarship and professional expertise within the reorganized teacher training system".

The intention is that some institutions will come to be recognized as national or regional centres of development and resources in both initial and in-service training. The need for such centres is illustrated by the recent national and, in some cases, international repercussions based upon the slender and modest inquiry carried out by Bennett into "progressive" schooling.

When the aim is long-term, qualitative improvement of schools and higher education, critical, multifaction and continuing evaluation is a necessary accompaniment and individual research. Indeed, it is hard to see how many of the proposals of the Green Paper for reform of the curriculum, improvement in transition between schools, attention to minority groups and the complex tasks of individual assessment, can be properly done without both national and regional centres of research and development.

The fact that the proposal for the growth of such centres is also linked to a commitment to comprehensive arrangements for induction and a trebling of the opportunities for in-service education, also underlines the opportunity for relating training much more directly to the critical appraisal of current practice.

Thus, the whole emphasis of the Green Paper is to shift from the drive in the last decade towards meeting quantitative targets to the much more subtle and difficult task of qualitative improvement. Many of the proposals in the Green Paper are addressed directly to local authorities and to institutions, and progress can be made within current expenditure targets.

However, the critical improvement relating to induction and in-service requires either major additions to the educational budget or substantial redeployment. It seems increasingly likely that the Government will have to take direct action of the kind hinted at by Gordon Oakes in his recent speech. Induction and in-service must be seen as a national priority: they cannot be left to the whim of individual local authorities.

Such matters are of close interest for educators in Britain, but may be seen to have little relationship with the other item of news which I found was raising the temperature not only in Australia but also in Thailand and Malaysia. British Council representatives in such distant postings were predictably stunned by the total rejection of the council's role. The need for major reappraisal and reform had obviously been anticipated, but the severity of the sentence clearly inhibited any constructive and measured response.

hTe Green Paper also gives welcome recognition to the sweeping social changes of recent years when it asserts that "our society is a multicultural, multiracial one, and the curriculum should reflect a sympathetic understanding o fthe different cultures and races that now make up our society. We also live in a complex, interdependent world, and many of our problems in Britain require international solutions. The curriculum should therefore reflect our need to know about and understand other countries."

The current outburst of racist feeling and cultural prejudice crystallized by the National Front make positive action along the lines proopsed in the Green Paper particu-arly urgent. It would be strange indeed if a major initiative within the educational system in the United Kingdom coincided with an abandonment of a British presence overseas for the British Council has done much to encourage links of friendship, cooperation and understanding between Britain and a wide range of individuals and countries throughout the world.

If we accept the assertion that "many of our problems in Britain require international solutions", we must be in a position not only to know about and understand other countries but also to influence them. That is why the "Think Tank" should have taken up the scalpel and discarded th eaxe.

The Institute of Linguists has moved and is looking to new horizons. Frances Gibb reports

Polyglot profession is on the move

The Institute of Linguists is moving upmarket. Its 11 full-time staff have settled into a pleasant Georgian-style terrace opposite Highbury Fields, North London, after many cramped years at Newington Causeway, SE1, and they are spreading their wings.

The move will afford the institute a chance to make a number of changes and improve its service to its members. It prides itself as the guardian of the linguists' profession: regulating admission of members by professional examinations, ensuring the observance of a code of professional conduct and providing a means by which the public can recognize linguists as qualified to a professional standard.

It also offers an information service providing a specialized lexical library, which will now be able to expand, and an information department which deals with almost 2,000 inquiries every year.

Its main work, however, is examining. Every year some 7,000 candidates (over 7,500 last year) sit one of the institute's five levels of examinations. Last year there were examinations in 27 modern languages, which are marked by the institute's own part-time examiners, drawn from all over the country.

For full membership of the institute candidates must have passed the final examination, but there is also an intermediate level, which gives associate membership, and three levels of certificates.

The examinations can be taken twice a year at some 200 centres. Most of the institute's work is in educational institutions, and almost 60 polytechnics and colleges, predominantly in the public sector, make use of the examinations.

But the institute also operates in the commercial sector and tests employees—last year about 250—from the Savoy Hotel Group, British Airways and the Institute of Bankers, among others.

Members are accepted as equivalent to graduates for the purpose of the teachers' Burnham salary scales, an obvious advantage to teachers who do not possess a degree. Apart from teachers, however, there are lecturers, scientific, commercial and literary translators, interpreters, librarians and information scientists, as well as linguist sin commerce, industry, government, the armed forces and the professions.

Membership confers both status and a link with the profession. Members receive a quarterly magazine, *The Incorporate Linguist*, and have access to all the institute's services.

The qualification is also recognized by the European Commission, so members can apply for jobs in member states.

Despite the so-called "language crisis", with the decline in applications to language courses at universities and polytechnics, and the disappearance of some languages from the school curriculum, applications for membership of the institute have increased.

This is in line with the growing popularity of vocationally-orientated language courses. Membership increased last year by 10 per cent, and there has been a continuous growth since the institute first started in 1910.

The expansion is indicative of the institute's changing role. Miss Mary Glasgow, the chairman, says: "We are striving to become more professional and to provide qualifications which will bring benefits."

The institute is tailoring its goods to suit requirements; becoming more conscious of the market. When it was founded, its origins were very much in the world of diplomacy. The founder, Lord Threlfall, was a former diplomat himself who had a love of language. He wanted to increase interest in languages and "bring like-minded people together".

After the last war there was a surge of interest in languages, with the growth of package holidays and then the EEC. Not until the 1960s, however, did the institute begin to develop as an examining body. There was a major revision of the syllabuses in 1960, when they became more precise, more specialized and more sub-divided.

"Whereas 10 or 20 years ago people thought of languages as the charming business of communication between countries," Mary Glasgow says, "now they are thought of much more in terms of professional tools for the specialist." Another major revision is now due and a committee has already been established to take a close look at the syllabuses.

Mr Michael Payne, the institute's secretary, says that languages for special purposes is likely to be a growth area for the institute. More and more professionals, engineers, doctors, lawyers, need to know French or German in their specialist subject. "If someone has a degree in languages, the number of jobs open to him are extremely limited. One must use languages in your job."

The other side of the coin, English as a foreign or second language allied to a particular profession, is also expanding. Arabs, for instance, want English connected with oil engineering, it says.

The institute sees itself as providing a substitute for the present A-level syllabus so much an alternative to it. Miss Glasgow argues that it is wrong that there tends to be only one course for language students; the literature-based A-level course. There are to be several approaches, she says.

"The emphasis has shifted away from grammar and word to speaking, and now to understanding. Very often what is spoken is not understood." For those who want to use their languages for translation, the institute has under its auspices the Translators' Guild, formed in 1955 to encourage co-operation between members of the institute engaged in professional translation. Membership of the guild is open to those who pass its postgraduate level diploma, and serves to protect the 300 translators in the profession, safeguarding their status, conditions of work, practice standards, and is at present seeking protection for translators as a profession within the EEC. Its current recommendations are accepted, the existing international agreements on translators' rights of copyright will be reinforced and their legal, social and financial status will be promoted.

The institute is discussing offering a more general diploma for translators, which might be available next year. The present one is geared to translators working in a particular field, and has a low pass rate (15 to 20 per cent) because of the high level of technical knowledge required.

As it becomes more conscious of the needs of the profession, the institute is moving closer to the educational world. It has recently established an educational trust which brings the financial advantages of charitable status, and opens its doors to more activities of a purely educational nature. The budget of about £50,000 to £60,000 a year comes entirely from subscriptions and examination fees.



Mr Michael Payne, institute secretary, at the new headquarters.

The British Association for the Advancement of Science

invites entries for the Trident Television Award for Communication in Science 1977/78

For the past two years the British Association for the Advancement of Science has collaborated with the Trident Television Group in awarding a prize known as the Trident Television Award for Communication in Science.

The purpose of the award is to broaden public knowledge of important ideas current in any area of science. The winner is selected partly for his or her contribution to scientific thought and partly for his or her ability to communicate such ideas. Originality is desirable; equally important is the ability to expound broad scientific concepts.

The award is open to all British scientists working in universities, Government research establishments and industry who have published original work.

The award consists of a medal, £1,000 in cash and participation in a nationally networked television programme originated by Yorkshire Television

(member of the Trident Television Group.)

Judges include:

Professor W.F. Bodmer, F.R.S.	Professor of Genetics, University of Oxford. Chairman, B.A. Study Group on Social Concern and Biological Advance.
Sir Montague Finniston, F.R.S.	Chairman, Sears Engineering Ltd. Formerly Chairman, British Steel Corporation.
Sir Ieuan Maddock, C.B., O.B.E., F.R.S.	Past General Secretary of the British Association.
Mr. Duncan Dallas	Secretary of the British Association.
	Editor, Science Programmes, Yorkshire Television.

Applications should reach the British Association by Tuesday, November 15th, 1977. For application forms, please fill in coupon.

To the British Association for the Advancement of Science, Fortress House, 23 Savile Row, London W1X 1AB.

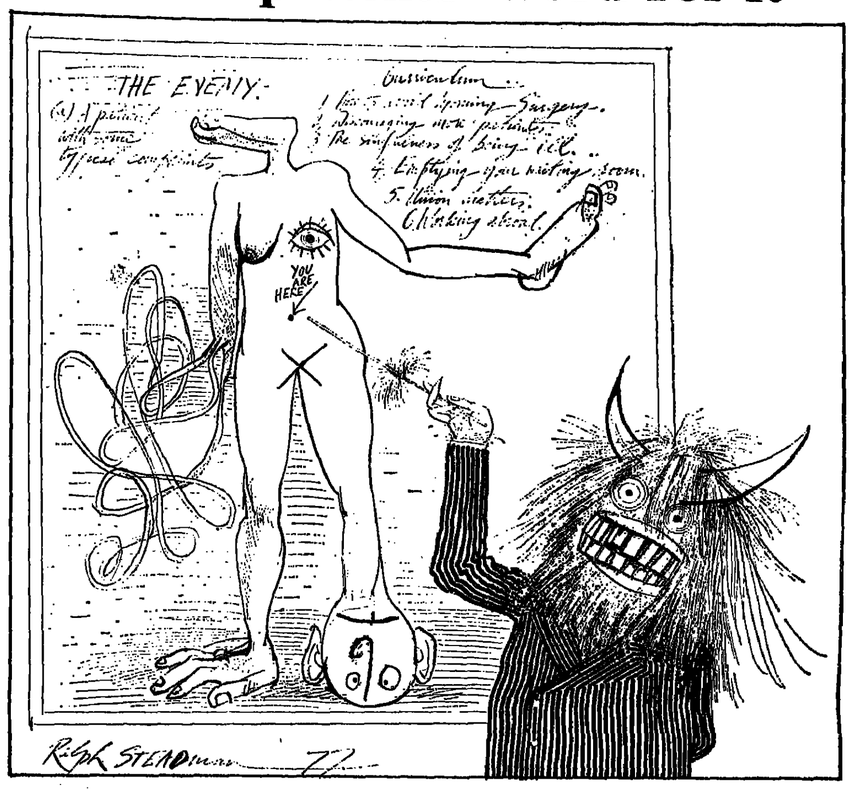
Please send me ..... application forms for the Trident Science Award 1977/78.

NAME .....

ADDRESS .....

Medical check takes patients' word for it

Clive Cookson reports on a 3-year, £50,000 GMC investigation into medical education



Medicine is one of the fields in which universities have least freedom to decide what they are going to teach and how they are going to teach it, for they have to operate within the legal framework of the outdated Medical Acts and under the supervision of the General Medical Council.

However the GMC's mammoth survey *Basic Medical Education in the British Isles*, published this week, shows that a remarkable variety of curricula and methods of teaching, student selection and assessment exists within these constraints.

The survey was carried out over three years at a cost of more than £50,000 by a team of four based at Dundee University's Centre for Medical Education. They have drawn a comprehensive picture of the 33 medical schools in the UK and five in Eire as they see themselves. The investigators deliberately avoided evaluating the information they collected and they present no conclusions or recommendations.

As the senior researcher, Mr Richard Wakeford, pointed out they could not have kept the goodwill of all 38 schools if they had been assessing their methods and judging their effectiveness.

The team worked through a GMC correspondent in each institution. He or she completed a lengthy questionnaire on the school as a whole and distributed up to 40 subsidiary questionnaires to those teaching the component disciplines and specialties of the medical course. Mr Wakeford visited each school three times to clarify and expand upon the replies. Students' views were not canvassed.

The results are presented in two volumes of 450 pages each. The first describes in general terms the schools' objectives, curricula, current developments an dobstacles to their achievement. It also contains an individual profile of each institution.

Volume two comprises 32 separate reports on the component subjects on the medical course. Unlike volume one, these are presented anonyously and they reflect the feelings, fears and hopes of the respondents as well as facts about their teaching arrangements.

The survey shows that all medical schools *have* modernized their curricula in response to the GMC's Recommendations as to Basic Medical Education of 1967 and the Todd Report of 1968. But some have changed far more than others. The early pre-clinical years, when the basic medical sciences are taught, show the greatest variation. Three schools, Leicester, oNttingham and Newcastle, have a "wholly integrated structure. Teaching is based on themes &opics and systems rather than delineated by departmental boundaries."

At the other extreme are 13 schools where the pre-clinical subjects are still treated entirely separately and there is no "horizontal integration" of subjects taught concurrently.

All schools now give pre-clinical students some clinical teaching, though only 16 reported that it was "significant" in terms of quantity and application to future clinical training.

The amount of practical work required differs widely. For example many medical students still spend long periods cutting up cadavers, and at seven schools dissection is the central feature of the anatomy course in terms of the time devoted to it and the importance attached to it. "Students acquire familiarity with the human body through working on it, their hands become more sensitive and dextrous and they grow in awareness of the relationship of one part of the body to another through direct tactile and visual contact".

On the other hand the new medical school at Southampton has decided as a matter of policy that no dissection will be required. At two medical schools "students are invited to come for open house dissection. This is reported to be eagerly accepted and they can be found in the anatomy dissecting rooms in the evenings and on Saturdays, supplementing the official diet (sic) at their own pace and on section of their own choosing".

In the clinical years the amount of curricular time devoted to specialities such as anaesthetics, dermatology, infectious diseases, ophthalmology, orthopaedics, otorhinolaryngology and venerology varies very greatly. "Some schools arrange a few weeks' full-time attachment, others will arrange a few hours' teaching here and there for the same subjects."

The total length of clinical courses ranges from 90 to 144 weeks. The report notes that the new two year clinical course at Cambridge, which has been criticized for its shortness, is longer than the three year clinical course at University College, Galway. Clinical teaching generally takes less time in Scotland (116 weeks average) than in the 12 London schools (133 weeks) and the English teaching hospitals serving local communities and provincial schools (127 weeks).

Use of "peripheral" hospitals—non-teaching hospitals serving local communities and giving students experience of typical clinical practise in the NHS—is increasing. Twenty United Kingdom medical schools now send students to peripheral hospitals for a month or more, an dthose that negotiated attachments primarily to solve overflow problems have found positive educational benefits in them. The largest such operation is carried out by Manchester University, which disperses 275 medical students to hospitals throughout North-West England for the whole of their second clinical year.

hTe survey detected a fairly general movement to extend students' experience beyond the traditional, hospital-based clinical disciplines into the community outside. The time and resources for teaching community medicine are expanding, and by next year all United Kingdom schools will include general practice in their curricula.

"In 17 medical schools, teachers of social and community medicine "are concerned to do more than impart information: they hope to influence students to adopt and retain new attitudes. They wish them to become permanently conscious of the wider context in which disease develops and medicine is practised, and to respond appropriately by being more 'rounded', competent doctors. Their care of individual patients will benefit from their understanding of the wider social picture."

Four respondents go further and specifically try to oppose the attitudes implicit in the rest of the clinical course. They deliberately provide a contrasting model of viewing medical practice, showing that the "clinical cure" ethos of short-term sophisticated medical treatment for individuals should be supplemented and sometimes replaced by "clinical care", which variously involves prevention, long-term surveillance, and non-medical health workers.

"Unfortunately", the report says, "teachers still have to struggle with prejudices carried over from a previous era, and this is sometimes compounded by suplcions of (particularly) sociology, and other innovations such as attempts to measure the effectiveness of care. Seven schools mentioned this difficulty; they are conclous of their image as a woolly, unglamorous, allegedly unscientific subject. Two of them and two others however feel they can go no further in pioneering their philosophy without radical change of the whole curriculum. The unwritten assumptions beneath the rest of the medical course are too much to contend with."

Of all the topics taught in medical schools, psychology and sociology give rise to the most dissatisfaction, both among those actually teaching them and among other academic staff. Problems arise as a result of their "newness", of trying to condense major university disciplines into a few hours of non-specialized instruction, of confronting hostility among staff and students, and of trying to convey concepts, outlooks and methodologies fundamentally different from those of the physical sciences.

A few GMC correspondents complained that curricular change seemed sometimes to be undertaken for its own sake; others pointed out that change would always be somewhat arbitrary and difficult to evaluate without detailed and clear-cut objectives. Some schools are therefore trying to define course objectives more precisely and establish a core of knowledge.

The objectives of most medical schools are still vague. The primary aim of all is to produce a "basic practitioner", a graduate prepared for a lifetime of continuing education. For an increasing number a major objective is to make students aware of a doctor's responsibilities to society as a whole.

Twelve medical schools stated that they place greater than usual emphasis on the scientific basis of medicine. This academic philosophy is most common in the old-established schools.

Academic excellence is an extremely important entrance criterion at all medical schools, and 10 select students entirely on their previous academic performance. Seventeen seek entrants who show evidence of strong "motivation" for a medical career; others deliberately disregard personal attributes such as motivation, having found them unreliable indicators of the sort of doctor who will emerge from the course five or six years later.

Attitudes to interviewing applicants vary accordingly: 21 schools normally interview everyone, others deliberately exclude interviews from the selection procedure but invite successful applicants to visit the school after an offer has been made.

Few medical schools admitted taking applicants' family background into account. A medical background is a help in getting into St Thomas's, however, though "social class is very definitely ignored". Queen's University, Belfast, may consider "whether the applicant has a close relative who is a doctor or a Queen's graduate" in filling the last few places.

Average A-level points of entrants to English medical schools vary from 13.4, between ABB and AAB grades, down to 10.7, between DCC and BBC. Not surprisingly, average grades are generally lower where there is a policy of interviewing applicants.

The proportion of mature students admitted varies widely. Six schools are prepared to take up to 10 per cent of their entry as graduates, and Southampton and University College, London, will go up to 15 per cent. University College and Manchester accept up to 10 per cent of their students from overseas; the foreign contingent is normally much smaller elsewhere.

Student assessment is another area in which the survey shows wide variations. Programme or in-course assessment is gradually taking over from the traditional end-of-course examinations, and the use of "objective" methods such as multiple choice questions has become widespread. Three of the 34 medical schools with pre-clinical courses operate an entirely end-of-course system, three have only in-course assessment, and the remainder adopt a variety of intermediate positions.

Each GMC correspondent was asked to outline the main problems and constraints facing his school. Most of the problems reported were a direct consequence of current financial restrictions. Six medical schools are suffering from delays in pre-clinical building programmes, nine are affected by delayed clinical projects, and a further three have been hit because both pre-clinical and clinical programmes are held up.

More general concern about inadequate facilities was expressed by 16 correspondents; laboratory accommodation was a particular problem in ten cases. Financial cutbacks have also exacerbated an already difficult staffing situation. Many schools are finding it impossible to provide sufficient staff.

The staff : student ratio has reached an "alarming" state in 17 microbiology departments, the report says; it is almost impossible to attract medical graduates into a full-time career in academic microbiology. The same problem, caused by large pre-clinical/clinical salary differentials, is troubling 22 anatomy and 18 physiology departments.

The Dundee team collected far more data than they were able to pack into two printed volumes, and the GMC is using it to provide an educational information service for medical teachers and administrators.

Basic Medical Education in the British Isles is not meant to be merely a glorified reference book, however. The GMC commissioned the survey partly as a replacement for the old and rather unproductive ritual of medical school "visitations", and it intends to use the information received as a factual basis for future policy decisions about medical education.

The report is published by the Nuffield Provincial Hospitals Trust at £14 for the two volumes.

NOTICE BOARD

Appointments

Universities

Oxford

Rhys research fellow and visiting senior research fellow: J. Beverley Smith, Jesus College.

Polytechnics

Ulster College

Director of studies and head of School of Art and Design Research, History and Criticism: J. H. Fraser.

General

Sir Ieuan Maddock, formerly chief scientist at the Department of Trade and Industry has joined TecQuipment, one of Britain's major exporters of educational equipment.

Mr Donald J. Gold, formerly full-time HMI with the Department of Education and Science with special responsibilities for management education has been appointed a part-time executive officer for the Association of Regional Management Centers.

Professor J. W. L. Beament Draper's professor of agriculture and head of the department of applied biology at Cambridge, has been appointed chairman of the Natural Environment Research Council for a period of four years. The new members of the Council are Professor J. A. Allen, director of the University Marine Biological Station, Millport, Isle of Cumbrae, and Dr J. C. Coulson, reader in animal biology at the University of Durham. Professor A. H. Cook and Professor T. J. Chandler have been reappointed. Professor R. B. Clark and Professor G. M. Dunnet are retiring.

Forthcoming events

The British Sociological Association Mass Communication Group is arranging four meetings dealing with political violence and mass media on October 12 and 26 and November 16 and 30 at City University, St John Street, London EC1. Speakers include Dr Philip Schlesinger (Thames Polytechnic) and Philip Elliott (Leicester University). Further details from Jeremy Tunstall, department of social science and humanities, City University.

* * *

A series of advanced external lectures plus associate seminars on fibre reinforced composites and laminates will be held at Brunel University, on Thursdays during the autumn term commencing October 6. The fee for the whole series is £70, or £8 per day. Further information from the advanced lectures secretary, department of non-metallic materials, Brunel University, Uxbridge, Middlesex UB8 3PH.

* * *

New developments in Business Education, a series of free half-hour radio programmes, is primarily designed to familiarise lecturers, employers, careers officers and others concerned with business education with the new Business Education Council courses, being introduced in England, Wales and Northern Ireland in September 1978. The programmes can be heard on Tuesdays beginning September 20 from 7.00-7.30 pm. Radio 3 (464 metres MW). Further information from Business Education, BBC, London W1A 1AA.

* * *

A one day discussion meeting "Technology transfer from the nuclear industry" will be held at The Cockroft Hall, AERE Harwell, on October 5. Further details from the meetings secretary, The Institution of Metallurgists, Northway House, Whetstone, London N20 9LW, telephone: 446 2251.

* * *

The Polytechnic of North London is arranging three courses in the design and analysis of social surveys. The first 10 week course "Use of SPSS and Elementary Survey Analysis" starts on October 11. The second "Practical Survey Methods" starts o 11January 10 and is followed by "Advanced Statistical Techniques in the Analysis and Design of Surveys" starting April 25. Further details from the department of mathematics, The Polytechnic of North London, Holloway Road, London N7 8DB.

* * *

"New Perspectives in Social History" a one term evening course at the Polytechnic of the South Bank starts on October 6. The course concentrates on the new methods and approaches of the past decade. Further details available from the secretary, Polytechnic of the South Bank, Borough Road, London SE1 0AA. Telephone 928 8989.

* * *

A two-day Forum "Nuclear power and the Energy Future" will take place at the Royal Institution, October 11 and 12. For further information contact T. Dick, registrar, Royal Institution, telephone 409 2992 or G. Pitt 994 1276.

* * *

The Oxford branch o f the Institute of Science Technology will hold a 1-day symposium on "Laboratory Management" commencing at 2.00 pm on October 5 at the laboratory of physiology, Parks Road, Oxford. Details from R. Weston, University Laboratory of Physiology, Parks Road, Oxford.

Noticeboard is compiled by Patricia Santinelli and Mila Goldie

Grants

Universities

Birmingham

Physics: Professor G. C. Morrison — £80,440 from the SRC for research on heavy ion transfer reactions.

Obstetrics and gynaecology: Mr J. A. Jordan — £29,400 from E. R. Squibb and Sons Inc for research on possible reference to cardiac and smooth muscle.

Biochemistry: Professor S. V. Perry — £140,123 (supplementary) for research on the molecular mechanisms of the regulation of contraction with special cervical and vaginal abnormalities after exposure to stilbestrol in utero.

Geological sciences: Professor D. Griffiths — £24,050 (supplementary) from the NERC for Scotia Arc project.

Anatomy: Dr J. H. Marston — £16,100 (supplementary) from the World Health Organisation for research on ectopic ovum development and the consequences of accelerated tubal transport in the rhesus monkey.

Exeter

Family Planning Research Unit—Sociology: Dr Robert Snowden — £37,000 from the DHSS for a study of patterns in the contraceptive provision: $191,709 from the International Fertility Research Program, North Carolina USA for research on intrauterine devices.

Polytechnics

Central London

School of Communication: £21,000 from the Fulbright Commission to fund an American scholar to work in the American studies resources centre with Mr C. Brookman.

School of Environment: £12,500 from the EEC to carry out a feasibility study to build and monitor a group of houses with a shared solar heating system at the Built Environment Research Group (in association with the Milton Keynes Development Corporation and John Laing Research and Development Ltd).

Liverpool

Architecture: Mr T. Stone—£21,316 from the SRC for work on a production information system for building.

Oxford

Town planning—£69,000 from the Central Electricity Generating Board for developing a method of predicting and monitoring the social and economic effects of power station developments on local communities under Huw Averley, John Glusson and Jacqueline Porter.

Open University programmes October 1 to October 7

Saturday October 1

RBC 2
7.40 Computing and Computers: Social implications of Computers (PD3051; prog 12).
8.30 Technology foundation course: The Use of the Compass (T100; prog 5).
8.55 An introduction to mathematics: Cantor and Infinity (MD201; prog 19).
9.20 Cantor and pure mathematics: Cantor and Sterling Fields (MD201; prog 20).
9.45 Mechanics and applied calculus: Orbits and Kepler's Laws of Motion (MD102; prog 12).
10.10 The digital computer: Error measurement (TD221; prog 11).
10.35 Mathematics: Random Variables (MD201; prog 21).
12.15 Biological sciences: Ecology: Ecosystems and the biosphere (SD206; prog 1).
13.40 Mechanics and applied calculus: Motion of Projectiles and Satellites (MD102; prog 13).
13.05 Geometrical illusions and perspective and transformations (MD201; prog 22).
13.20 Social change: A discussion (D351; prog 1).
13.55 Comparative government and politics: Why Governments Fail (D301; prog 1).
14.20 Technology for farmers: Education technologique (PE3471; prog 11).

RADIO 3 (VHF)
9.25 Recording and society. Alternatives: Beyond often Plank (3202; prog 9).
9.45 Mathematics foundation course: Groups (3): (MD01; prog 22).
7.10 Arts foundation course: Whistler v. Ruskin (A301; prog 34).
7.35 Science foundation course: The Ozone Layer Particle (B100; prog 33).
8.05 Telecommunication systems: Long-distance Telephones (3221; prog 12).
8.30 Women and development: Games and Development: Education (3203; prog 9).
9.45 Women and development: "The Emancipation of Women" (3203; prog 10).
10.10 Mathematics foundation course: "The Mathematical Century" (MD01; prog 1).
10.35 Mathematics foundation course: Crossing Lines (MD01; prog 23).
11.00 Technology foundation course: The Sand in the Glass (T100; prog 33).
11.20 Personality and learning: Blinkers (3501; prog 11).
11.40 An introduction to psychology: Psychology (3626; prog 10).
12.05 Rambouillet and Helsinki: Beginning and Ending (A201; prog 30).
12.30 Earth science topics and methods: Lunar Geochronology (B353; prog 10).
14.40 Social Sciences: The Use of Libraries (D100; prog 1).
15.00 People and work: Work and Society (3553; prog 10).
15.20 Curriculum design and development: The Curriculum Without Tears (L203; prog 23).
15.40 Urban development: Urban and Suburban Cities (D351; prog 10).
16.00 Industrial Management: Management Development (3552; prog 11).
16.20 Perspectives in Language: Talking Proverbs (A363; prog 11).
16.40 Mathematics foundation course: Groups and Symmetry (MD01; prog 24).

RADIO 3 (VHF)
(replacement Programmes for North Scotland and Wales)
24.00* The nineteenth-century novel and its influence: The Novel in Use 2: Hardy and Social Change: A Discussion (D353; prog 10).
00.20 Comparative government and politics: Why Governments Fail (D301; prog 10).
00.40 Technology for farmers: Education technologique (PE3471; prog 11).

Sunday October 2

BBC 2
7.40 Arts foundation course: William Morris and Industrialism (A100; prog 3).
8.05 Science foundation course: Elementary Particles (B100; prog 32).
8.30 Mathematics foundation course: Precision and Accuracy (MD01; prog 2).
8.55 Telecommunication systems: Long-distance Telephones (3221; prog 12).
9.30 Women and development: Games and Development: Education (3203; prog 9).
9.45 Women and development: "The Emancipation of Women" (3203; prog 10).
10.10 Mathematics foundation course: "The Mathematical Century" (MD01; prog 1).
10.35 Mathematics foundation course: Crossing Lines (MD01; prog 23).
11.00 Technology foundation course: The Sand in the Glass (T100; prog 33).
11.20 Personality and learning: Blinkers (3501; prog 11).
11.40 An introduction to psychology: Psychology (3626; prog 10).
12.05 Rambouillet and Helsinki: Beginning and Ending (A201; prog 30).
12.30 Earth science topics and methods: Lunar Geochronology (B353; prog 10).
14.40 Social Sciences: The Use of Libraries (D100; prog 1).
15.00 People and work: Work and Society (3553; prog 10).
15.20 Curriculum design and development: The Curriculum Without Tears (L203; prog 23).
15.40 Urban development: Urban and Suburban Cities (D351; prog 10).
16.00 Industrial Management: Management Development (3552; prog 11).
16.20 Perspectives in Language: Talking Proverbs (A363; prog 11).
16.40 Mathematics foundation course: Groups and Symmetry (MD01; prog 24).

RADIO 3 (VHF)
(replacement Programmes for North Scotland and Wales)
24.00* Decision making in Britain: The Office of the Prime Minister: Part 1 (D352; prog 10).
00.20* Decision making in Britain: The Office of the Prime Minister: Part 2 (D352; prog 11).
00.40* Mathematics: A Review (MD03; prog 11).

Monday October 3

BBC 1
6.40 Principles of chemical processes (T102; prog 12).
7.05 Industrial analysis and development: Economic development in Poland (D302; prog 10).
7.30 Urban development: Future Urban Trends (D351; prog 10).

BBC 2
6.40 The digital computer: Error Measurement (TD221; prog 11).
7.05 Physiology of cells and organisms: Communication Theories (S206; prog 16).
7.30 Quantum theory and atomic structure: Identical Particles (S355); prog 9).
8.55 Biochemistry: Origins of Japanese Industrial Leadership (D354; prog 10).
17.45 Portraits under Stress: The Turbine Builders — Parsons Succeed (A101; prog 10).
18.10 Mathematics foundation course: Precision (MD01; prog 2).
18.35 Technology foundation course: The Sand in the Glass (T100; prog 33).

RADIO 3 (VHF)
6.55 Personality and learning: Blinkers (3501; prog 11).
8.20 Twentieth-century poetry: Modernism and Social Implications: Modernism: art from 1900 to the Second World War and Tradition (A305; prog 10).
6.40 The Impact of American Pop Culture in the Fifties (A302; prog 16).
17.45 Reading development: Formats and Processes (3202; prog 6).
18.05 Open Forum—33.
18.20 Technology: Announcements/Music Pill.
18.25 Schooling and society. Alternatives: Beyond Point Blank (3202; prog 10).
18.45 Urban and rural: central themes (D351; prog 1).
19.05 Open University Announcements/Music Pill.

Replacement programmes for North Scotland and Wales
24.00 Decision making in Britain: The Office of the Prime Minister: Part 1 (D352; prog 10).
00.20 Decision making in Britain: The Office of the Prime Minister: Part 2 (D352; prog 11).
00.40 Maths and society: Statistics and Society (D5281; prog 18).

Tuesday October 4

BBC 1
6.30 Environmental control and public policy: Asbestos — a problem Produced (prog 1).
7.05 Environment: A Choice of Worlds (prog 5).
7.30 Renaissance and Reformation: The Alchemical Act (A201; prog 7).
8.40 Urban and development: Cities and Development (D351; prog 9).
9.05 Modelling in the social sciences: Personality and Learning (D352; prog 9).
9.30 Urban development: The Metropolitan Area (D351; prog 9).
10.35 Arts and environment: Pollution, computing and computers (prog 1).
11.00 Complaints of computers (PD3051; prog 13).
11.20 Ecology, whetstones Mere (S325; prog 10).
17.45 Nuclear physics: theory and atomic structure: Identical Particles (S355; prog 10).
18.10 Earth science topics and methods: Lunar Geology, on the Moon (B353; prog 11).
18.35 Arts foundation course: Romantic Key Particles (B100; prog 34).

RADIO 3 (VHF)
6.00 An algorithmic approach to computing: Radio Tutorial (3231; prog 10).
6.20 Instrumentation: Revision (3201; prog 10).
6.40 Systems management: Self-Government and Work Systems (3553; prog 10).
7.00 Announcements: Music Pill.
7.20 Data communication and computer networks: James Bond: Code and Conventions (3233; prog 11).
7.40 Technology foundation course: Music of Work (T100; prog 27).

RADIO 4 (VHF)
9.10 Economics: Feedback (3222; prog 10).
9.30 Computer literacy and computing: Computers and Society (PD3051; prog 11).
9.50 Quantum theory and atomic structure: Identical Particles (S355; prog 10).
10.10 The origin of Society (A221; prog 6).
24.00 Quantum theory and atomic structure: Hydrogen Evolution in Stellar Astronomy (S356; prog 10).
00.20 The use of resources: Models of Victim (A881; prog 22).
00.40 Mathematics foundation: Hot Numbers and the Language (A261; prog 30).
History of architecture and design: Art and Society: Work of Robert (A305; prog 10).

Wednesday October 5

BBC 1
6.40 Elementary mathematics for science and technology: the structure of systems (A261; prog 31).
7.05 The human impact upon the environment: Pollutants (A261; prog 32).
7.30 Instrumentation and electronics: Review of the Course (3202; prog 10).

BBC 2
6.40 Materials under stress: The Turbine Builders — Parsons Succeed (A101; prog 10).
7.05 Man-Machine (1): The Public Image.
7.30 History of architecture and design (D302-7): The Suburban Ideal (A305; prog 23).
10.55 Introduction to radio-wave technique: Refracting Engine (3231; prog 10).
17.20 The nineteenth-century novel and its influence: Hardy and Social Change (A305; prog 14).
17.45 Decision-making in British education systems: Selves and Standards (T251; prog 10).
18.10 People and work: White-collar workers (3553; prog 10).
18.35 Arts foundation course: Realism: Morris and Industrialism (A100; prog 34).

RADIO 3 (VHF)
6.00 Science education: The Alternative use of Resources (3257; prog 11).
6.20 The social context of scientific ideas: Ideology (3203; prog 14).
6.40 Work and society: The Classification of a Permanent Arms Economy (A302; prog 10).
17.45 Systems behaviour: Systems Thinking (3231; prog 10).
18.05 Decision-making in Britain: Title not yet known (D352; prog 12).
18.25 Arts foundation course: Realism: Morris and Industrialism (A100; prog 34).

Replacement programmes for North Scotland and Wales
24.00 Industrial relations: Management Perspectives (3552; prog 10).
00.20 Industrial relations: Reform or Revolution (3552; prog 11).
00.40 Maths and society: Statistics and Outcomes (D5281; prog 9).

Thursday October 6

BBC 1
6.40 The revolution of 1840: Class and Politics (A261; prog 33).
7.05 Drama: Bless Baal (A307; prog 15).

BBC 2
6.40 Management in education: Staff Development: The Individual and the Organisation (3231; prog 8).
7.05 Nitrogen Fixation 1 (S351; prog 10).
7.30 Nitrogen Fixation 2 (S351; prog 10).
Man-Machine (2): Case Study: The Eye — Case Study (B151).
16.55 Personality and learning: Classroom Interaction (3501; prog 12).
17.20 Elementary mathematics for Science and Technology: Structure of Systems (A261; prog 31).
17.45 Nuclear physics: theory and atomic structure: Identical Particles (S355; prog 10).
18.10 Earth science topics and methods: Lunar Geology, on the Moon (B353; prog 12).
18.35 Arts foundation course: Romantic Key Particles (B100; prog 34).

RADIO 3 (VHF)
6.00 Computation, design and development: Computation and Modernisation (3231; prog 11).
6.20 Instrumentation: Music Pill.
6.40 Technology foundation course: Wool Technology (T100; prog 28).
7.00 Announcements: Music Pill.
7.20 Data communication and computer networks: James Bond: Code and Conventions (3233; prog 11).
7.40 Technology foundation course: Music of Work (T100; prog 27).

Replacement programmes for North Scotland and Wales
24.00 An introduction to psychology: Psychology (3626; prog 10).
00.20 Urban development: Cities and Suburbs (D351; prog 10).
00.40 Curriculum design and development: The Curriculum Without Tears (L203; prog 23).

Friday October 7

BBC 1
6.40 The development of instrumentation: their music: Carlos (3202; prog 10).
7.05 The age of revolutions: Is Not Liberty Sweet (A261; prog 34).
7.10 Land science: Rocks and man: Geology on the Moon (S325; prog 10).

BBC 2
6.40 Fundamentals of human concern: Who Plans Failure? (3626; prog 10).
7.05 Man-Machine (3): Broadcasting Control (D302; prog 16).
7.30 The Industrial Revolution: Was there a legacy: The Writer in Exile (A302; prog 10).
10.55 Introduction to radio-wave technique: Antennas and Feeders: from Copernicus to Einstein (3231; prog 11).
17.20 Computation, design and development: The Computer Process (3231; prog 12).
17.45 Regional Economic Development in Poland (D302; prog 10).
18.10 Urban development: Future Urban Trends (D351; prog 10).
18.35 History of Architecture and design (D302-7): The Suburban Ideal (A305; prog 23).

RADIO 3 (VHF)
6.00 Systems behaviour: Systems Thinking (3231; prog 10).
6.20 Computing and computers: The Computer Process (3231; prog 12).
6.40 Computer literacy and computing: Blackmailers and Robots (PD3051; prog 14).
7.00 An algorithmic approach to computing: Algorithms (3231; prog 11).
7.20 Topics in pure mathematics: Fermat's Last Theorem (MD201; prog 16).
7.40 Holiday, Health and Disease: How a Holiday Changes Lives (S325; prog 9).
18.45 Computer Journey to the Centre of the Mind (B351; prog 1).
19.05 Arts foundation course: The Omega Mass Particle (B100; prog 35).

(Replacement programmes for North Scotland and Wales)
24.00 Women and development: The Sources of Oppression (3203; prog 11).
00.20 Women and development: Education (3203; prog 12).
00.40 Open Forum—34.

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Time is ripe for DES to earmark library grants

James Thompson suggests some measures to relieve current pressures on university libraries

Various alarms have been sounded recently about the current financial state of British university libraries. At the National Book League conference in July on "Coping with Cuts", it was revealed that between 1973-74 and 1974-75, in a period when the value of sterling fell by 24 per cent, no less than 45 per cent of all university libraries reduced their expenditure on books even in straightforward monetary terms.

And in its annual report for 1976 the Standing Conference of National and University Libraries reported that although a fall in 1974-75 of 19 per cent in funds available nationally for the purchase of university libraries of books and periodicals was followed by a 21 per cent improvement in 1975-76, over the same two sessions book costs increased by 55 per cent.

Everywhere there have been cancellations of periodicals and reductions in the purchase of foreign materials. Normal processes of book selection now simply falter on many important texts and reference books which have become too expensive to buy, so creating irremediable gaps in the library collections available for future generations of students and researchers.

On top of all this has been the impact of the University Grants Committee's *Report on Capital Provision for University Libraries*, the Atkinson report, with (in the bitter words of Dr Larkin, librarian of Hull University) its remarkable vision of the country's research needs increasingly dependent on a single national store. The future of British university libraries, in Dr Larkin's opinion, has dimmed to extinction.

However, while the effects of inflation and devaluation are undeniably worrying—especially the latter, since most libraries obtain about two-thirds of their books and periodicals from abroad—the true cause of the present harrassment and undermining of British university libraries has been the screwing down by the Government, for economic and political reasons, of the expansion of higher education.

This has been compounded by the traditional tendency of university authorities, when seeking economies, to skimp on library provision.

But even in times of boom, never mind recession, British universities in general failed to make adequate library provision. In 1967 the UGC's *Report of the Committee on Libraries*, the Parry report, recommended that a university should spend 6 per cent of its budget on library provision. At the time of the report the national average was 3.8 per cent. Even by 1974 the average was still 4.5 per cent and although the unofficial statistics gathered by the Standing Conference of National and University Libraries for 1976 showed a further improvement to 5.72 per cent, the 6 per cent level has remained elusive.

In any case, Parry's 6 per cent was suggested as a minimum. The true true figure is probably to be in the region of 7.5 per cent. As far back as the 1930s, in *The British Universities*, Sir Charles Grant Robertson wrote that a university with a budget of £200,000 should include "for choice" £15,000 for the library which will be the most comfortably equipped department in the whole institution and will be open from 9 pm until midnight".

Since most university authorities did not manage to implement the recommended 6 per cent in times of boom they are hardly to be entrusted with achieving 7.5 per cent in some future Utopian oil-rich period. Nor can they be trusted to set priorities in whatever remains of the present time of recession.

The curious thing is that university authorities, even those with pretensions, do not seem to have noticed that major universities are invariably characterized by major libraries. This is an absolute rule. An examination of the most recently available library expenditure figures from the Department of Education and Science (1973-74) provide some obvious contrasts: for example, Oxford spent 8.1 per cent of its budget on its libraries; Heriot-Watt, 2.9 per cent.

The time has surely now come when the UGC, or the DES, must earmark library grants. It should be a corollary to this that since such earmarked grants will cover both staff provision and the purchase of published materials, the disposition between the two should be strictly in the hands of each university's library committee.

This would avoid the inevitable imbalance which results from the present general arrangement in universities (geared primarily to the needs of teaching departments) whereby provision for staff is pursued entirely separately. A university library cannot be administered effectively if these two elements are not planned, and adjusted, in tandem.

The failure of universities over the years to fund their libraries adequately is most clearly revealed by the depressed level of British university library book stocks. In the National Book League 1968-73 survey of university library expenditure, only Birmingham, Cambridge, Durham, Keele, Manchester, Oxford, Aberdeen, Edinburgh, Glasgow and St Andrews could muster more than 100 volumes per student.

True enough, the choice of a level of provision of 100 volumes per full-time student is completely arbitrary and artificial; but to anybody outside universities it would surely seem a very modest target.

The poverty of our university libraries can be best illustrated by applying this unambitious criterion to a random selection of the libraries listed in the NBL's tables. In the following, the figures on the left are student numbers by 100 volumes, and the figures on the right are the actual book-stock in 1972-73:

Aston	361,000	133,000
Bristol	622,100	406,000
East Anglia	280,100	155,000
Leeds	962,100	740,000
Nottingham	547,600	354,000
Reading	499,700	379,000
Sheffield	600,000	444,000
Cardiff	339,000	279,000

There is little doubt that a 7.5 per cent earmarked library grant would rectify this situation in about 10 years. The next problem, of course, would be providing accommodation. And it is ironic that the UGC has chosen the present time to publish the Atkinson report, based on the hypothesis that our university library growth is excessive.

Not only is the hypothesis incorrect, but even the hypothetical solutions to it are impractical (although not, unfortunately, improbable). What was really required was the formulation of a rational building programme extending over two quinquennia. This is not to say that new buildings and new extensions need to be planned on traditional lines.

A proper study should have been undertaken to identify first, which universities needed help and in what order of priority, and second, to lay down some new principles of library building planning. The former is necessary because, as with funding, individual universities cannot always be relied on to get their building priorities right.

Should a new oil-rich boom come, the outcome might very well be a building rash of sports halls and university theatres—almost anything except the proper (but very ordinary) provision of a crucial facility such as library accommodation.

The principles of sound new principles of library building planning is similarly important, because universities are also generally unimaginative about the provision of different kinds of reading facilities for staff and students, about the time-scale of library growth and about the patterns of use of the various categories of published materials.

Finally it must be said that university librarians are themselves not free of blame in the present situation. But even if the least of us had been headed a little more, things would not have been as bad as they are. Where we librarians need chivvying over the next 10 years is mostly in the matter of internal library management.

A first reform should be in the area of cataloguing: it is devastating to think that the majority of the 50 or so university libraries in the country are still employing cataloguers to process the same titles independently and separately. The DES ought somehow to negotiate with the British Library to do most of this university library cataloguing on a contract basis. Likewise each British university library ought to be plugged into the international computer-based information services as a non-optional national arrangement.

There will no doubt be defensive cries about the autonomy of individual universities and their libraries, and ponderous references to thin ends of wedges. But current difficulties do unmistakably point up the fact that the funding and maintenance of academic libraries in Britain need a more rational and reformed regulation than is presently provided, either by individual universities, or indeed by the UGC itself.

The author is librarian of Reading University.

The dilemmas that face a tired crusader of the British left

Maurice Peston reviews Harold Evans' BBC-2 programme on changing fortunes at *New Statesman*

Normally I would be watching *The Rockford Files* at that time having been a fan of James Garner since the great days of Maverick. Harold Evans's programme on the *New Statesman*, therefore really was something different. It did not have a plot, there was no obvious hero, and there was not on attractive girl in sight.

Yet it did convey a great deal of interest, some of which might even have been significant. I was fascinated to discover, for example, that Stanley Charpless, Paul Johnson, and E. O. Parrott, were all real people, whereas Maude Gracechurch was not.

Although I have read New Statesman since I was at school, until this programme I had never realized how middle-class it was. There was a cricket scene, the board meeting, and the literary cocktail party at the end—all about as far removed from the lives of ordinary working people as one could possibly conceive.

Even Richard Hoggart, who is to become chairman of the board, seems to be in danger of being enveloped in an atmosphere of southern respectability. By comparison Harold Evans of himself almost stood out as a son of the working-class. He referred to New Statesman as "a very British concoction", and I know what he means. But it is obvious that the paper is not very British in the sense of reflecting this country in most of its dimensions, and probably never has been.

If I ask myself why New Statesman used to be the best of the weeklies, the answer has to be partly that it was so well written, and partly that it was left-wing. Whether or not its content was insufficiently left-wing (and when I was young sense is the last thing I was looking for), it was different.

It was not automatically anti-Labour, and when it criticized Mr Wilson's government it was on the grounds of its being insufficiently socialist, rather than too socialist. It is easy to forget how right-wing the media as a whole once were. Even today there are newspapers that find it almost impossible to print something in favour of the Labour Party and the Labour Government.

In the old days it was easy to be on the left, because there were so many wrongs to be righted, and it seemed pretty obvious what ought to be done. If you coupled these views with *New Statesman*'s style, which was more fluent than anybody else could manage, your arguments became totally compelling. Thus, for many of us, *New Statesman* overcame the lack of fact and deficiences of logic, and left us in no doubt at the time of reading of the correctness of the views being expressed.

This the programme did not succeed in getting over, revealing the deficiency of television as a literary medium. (Curiously enough, it did not even use its visual powers to emphasize sufficiently what has been one of the great triumphs of *New Statesman*, namely its tradition of superb cartoons. Here too the same point can be made, namely that the form did rather bias the content.)

While the progamme failed in those ways, it did get over something which is probably much more important. That is that there seems nobody at the present time at New Statesmen who has any fire in his belly. Perhaps this has always been true, and perhaps it is so by intention. Nonetheless, the obvious question has to be asked as to whether all those regular contributors ever meant what they wrote, or was it just a bit of intellectual fun?

It was for that reason that I was most intrigued by Anthony Howard's contribution. There is a need at the present time for rethinking democratic socialism and setting out a new philosophy rather than reiterating that of the past. Many of the detailed proposals of the left have been carried out. They are now part of the "is" of our lives, and automatically become targets for criticism.

As Howard pointed out, the result has been that the radical right have a philosophy and a method of analysis, and things have become so easy for them as they use to be for the radical left. The right are no longer the guardians of the past, whereas the left now have to defend what Howard so rightly calls "the citadel".

If the writers of the left simply praise the achievements of earlier Labour administrations and maintain much of the status quo, they will not appeal to the young and will not help to sell copies of *New Statesman*. To criticize in a constructive vein (for example: "pensions are too low but are relatively higher than they were" or "the National Health Service needs improving, but do not forget what going to the informary was like in the 1930s") may be rational and sensible, but appears to infuriate many young people who then find solace in irrationalism of many sorts.

Connected with this is the attitude of *New Statesman* readers. Someone in the programme referred to them as "Conservatives with guilty consciences". I think there is a good deal to that. Many members of what one takes to be New Statesman type (and many Fabians, for that matter) find it hard to realize that the Labour Party policies they advocate apply to them as well as the rest of the community.

Comprehensive schools were not set up just for others, but for their children as well. Public wards in the NHS, rather than private rooms, were available for them too. If their incomes are above average, and most of them are, redistributive taxation is bound to fall on them, there not being two kinds of rich—deserving and undeserving. For some the fact that the Labour Party has been doing what it said it would do has proved to be just too much.

This leads to the future. Harold Evans asked about the influence of *New Statesman*, and guided the programme, not maliciously, to the conclusion that the paper was not very influential at the present time.

All my experience would confirm that conclusion. The politicians I have known certainly take the political writing of *The Sunday Times*, and even a little of its economic writing, seriously, that it not true of *New Statesman*. Similarly, better discussions of social policy and education policy are to be found elsewhere.

But all is not lost. There is no serious left-wing comprehensible economic writing to be found anywhere, and no political philosophy. *New Statesman* could rapidly capture those two areas for itself. Even in education, and bearing in mind where I am presently writing, the level of discussion could easily be raised.

To return finally to the programme itself, I suppose it really was quite good. Certainly, I would not have thought about these matters if I had not watched it; although I still wonder when they will be repeating that missing episode of *The Rockford Files*.



Garland's view of the Webbs and George Bernard Shaw launching New Statesman, from an original in the journal's office.

* Other Voices: The New Statesman. BBC-2, September 6.
Executive producer Will Wyatt.



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Room 541
Washington DC

Falling standards: 'society to blame'

A change in America's social attitudes is to blame for the long and steady decline in the test scores of school leavers, and not the tests themselves or the schools, according to a new study.

The long-awaited report by the College Entrance Examination Board says there is no single reason for the decline. The drop between 1963 and 1970 was due mostly to changes "in the composition of the group of students going on to college."

The report *is by a special panel* set up two years ago to look into the reasons underlying the decline in the scores on the Scholastic Aptitude test, taken every year by about one million school leavers hoping to go on to college and university.

The advisory panel consisted of a number of distinguished educators, and was the direct result of public anxiety that a generation of school leavers cannot read or write a correct sentence of English or cope with simple mathematical problems.

The report said much of the decline was related to the "notable extension and expansion of educational opportunity in the United States." It pointed to low income and minority students and women as part of a new test-making population *that tended to lower the average scores.*

But since 1970 other factors had come into play, including relaxed teaching and learning standards, television, changes in the family's role and social turbulence.

The report notes the turmoil of the Vietnam war, political assassinations, rioting in the cities and the "corruption of national leadership" over the past decade.

"There is simply no way of knowing how much the trauma, between 1967 and 1975 . . . affected youths' motivation—and whether there was consequent effects on their college entrance scores. *This probably* made quite a difference."

Since 1963 the average SAT scores has dropped 40 points on the verbal section and 32 points on the maths section. The score scale runs from 200 to a possible highest score of 800. This year's national mean scores were 429 in verbal and 471 in mathematics.

Enormous importance is attached to these scores. In the absence of any nationally validated school leaving examination, it is the only rough guide the general public has to standards achieved by those leaving school.

As a result of its two-year inquiry, the report recommended a "broader inquiry into the function of tests at the passage point between high school and college." Traditional tests should be evaluated, said the report said, to determine how much they reflected society's educational values. Though the inquiry focussed on the Scholastic Aptitude Test, the study found a similar decline of scores in other standardized tests across the country.

The panel also decided that there had not been any changes in the tests themselves or in the way they were marked. In fact, it said, the test had become even more valid over the years as a predictor of how well students would do at college.

Most American colleges and universities—especially the good ones —pay close attention to SAT scores in deciding their admissions, and have had a vital interest in the causes of the decline.

McGill fights 'takeover' image

McGill University in Montreal is launching a massive publicity campaign to correct the wrong but generally held opinion that it is about to become a French-speaking universiyt.

At the same time this ancient and prestigious institution is to intensify its recruiting campaign outside Quebec in an effort to offset the damaging effect the new controversial Quebec langnague laws will have on its intake of students from within the province.

Although the French language legislation—known as Bill 101—does not affect higher education, its strict limitations on the rights of English-speakers to send their children to English schools in Quebec will, the university fears, sharply reduce the pool of properly qualified English-speaking applicants to McGill from Quebec. The university anticipates a fall in its total numbers in any case because of the declining birth rate.

McGill is especially worried that in all hte controversy over the language law, the impression has been created that the university's days as an English-speaking insituiton are numbered. McGillasserts that it has no intention of teaching in French, or even becoming bilingual, and it is doing its best not to encourage French-speaking Quebeckers to apply.

Public misconceptions have certainly spurred McGill into being less aloof in recruiting. The university's proportion of students from outside Quebec has dropped steadily as other Canadian universities were established, and since November—when the present separatist Government came to power in Quebec—the number of out-of-province and overseas applicants has dropped noticeably.

Embarrassingly, the drop has been balanced by a huge surge in the number of French-speakers wanting to come to McGill. The university does not administer any language test, but makes few concessions to the French-speaking students. These now account for 15 per cent, a figure which the university would not like to rise.

Although it insists that it will not place a quota on French-speakers, a sharp jump would create difficulties vis-a-vis the French-speaking universities in the province, and would certainly upset the provincial Government.

An increase in the number of French speakers could put pressure on the university to begin regular courses in French. It already runs a number of classes in French for lawyers an dothers who need the language to be able to practise in Quebec, and any student is allowed to write his examinations in French.

Ironically, the upsurge in French applicants is probably because of Bill 101. Many French speakers feel their chances of learning English in a unilateral Quebec will be reduced, *and for economic advancement they want to study in the language of the majority of North America.*

Indeed, many of the present Quebec Cabinet are themselves McGill graduates, including M Jacques-Yvan Morin, the Minister of Education. The surge also reflects discontent with two of the large French-speaking institutions, Laval and the University of Quebec, after their lengthy strikes last year.

More support for Burt's inherited intelligence

The theories of the late Sir Cyril Burt were vigorously defended at a recent meeting of the American Psychological Association in San Francisco.

Dr Ellis Page, president of the association's division of educational psychology, said Professor Burt had, argued powerfully for intelligence as an inherited trait. He said Burt was being attacked not for his scientific record-keeping but for his theories. "The aim is to discredit him only as a means of discrediting what he believed", Dr Page said.

He pointed out that experimental results obtained by Gregor Mandel, who developed the first fundmental laws of genetics, and the methods used by Isaac Newtour in some of his research, might have been manipulated to suit these theories.

Despite these "sins", he said, "one thing you may not do: you may not reject Newtonian physics nor Mendelian genetics".

One of Burt's main disciples in the United States is Professor Arthur Jensen, the controversial Berkeley educational psychologist, whose theories on the links between race and intelligence caused a political furore when they were published in 1969.

In a recent videotaped interview shown at the Second International Congress on Twin Studies in Washington, Professor Jensen dismissed the charges that Burt was too old and infirm to have redone the statistical computations in three papers he published between 1955 and 1966 purporting to show strong correlations between the IQ level of identical twins reared apart.

Burt reported the correlations between the twins' IQ scores in all three studies were 0.771, with 1.00 being an exact match. Professor Leon Kamin of Princeton University and other critics have argued that the probability of such correlations recurring was very remote.

Meanwhile, at the conference the controversial argument over race and intelligence continued with a report by Professor Sandra Scarr of Yale University that recent studies of the IQ levels and school achievement scores of black and white adopted children indicate that genetic background and family environment, but not race, have substantial impact on intellectual performance.

Professor Scarr says that the one study of black and mixed-race children adopted by 101 white, working and middle-class families, the adopted children averaged 110 on IQ tests, well above the average of 90 generally scored by black children in the mid-west of the United States.

A comparison with 104 families that adopted white children showed that IQ scores of the white adopted children were very close to those of the black children.

Israel

Immigrant scientists escape job freeze

from our correspondent

JERUSALEM

The Government is to create 150 new posts for immigrant scientists in ministries and research institutes, this despite the recent decision to freeze establishments in Government departments and public services in general. A special committee chaired by the Director of the National Council for Research and Development will screen the candidates.

This is the latest in a series of programmes and measures aimed at facilitating the absorption of immigrant scientists and university graduates, who in recent years have formed a markedly larger proportion of the total immigration than in the past.

The first and most important of *these measures was the setting up* over the last 15 years of a network of 65 absorption centres, spread all over the country, for university-trained immigrants and their dependents.

In these centres they are maintained and provided with temporar accommodation and services for about six months—during which time the immigrants are able gradually to adapt themselves to their new country and, with the help of special officials in the centre, to learn Hebrew, find employment and permanent housing. Schooling and out-of-school activities are provided for the children and leisure activities for the adults.

Universities appointing immigrant scientists to their academic staff receive special allocations from the Ministry of Immigrant Absorption for up to three years.

The universities, despite their financial straits, do all in their power to retain the best of these. They would gladly take in more, particularly of the younger, highly promising researchers and scholars. The Planning and Grants Committee is giving the universities a special alocation in the coming academic year to enable them to take in such bright young people, Israelis as well as immigrants.

Govednment financial assistance is also given for up to three years to industries and research institutes which employ immigrant re*searchers, on the understanding that* they will be absorbed after that period if they prove their worth.

Many graduate immigrants, unable to find employment in their specialities, undergo retraining in courses arranged by the Ministry of Labour. Since 1970, 5,000 graduates have undergone retraining in 200 different courses run by universities for the Ministry.

This Ministry has recently inaugurated a new programme of refresher and adaptation courses for immigrant engineers in employment to enable them to adapt more easily to Israeli conditions; 126 engineers have just completed the first such courses.

The Ministry of Education and Culture is also engaged in retraining immigrant graduates. Engineers, mainly women, are successfully retrained to become teachers in technical and professional schools and women graduates in chemistry to teach domestic science in upper secondary classes.

The participants in all these courses are predominantly immigrants from eastern Europe. Their programme includes not only the study of Hebrew but also basic civics.

Greece

Would-be economists head scramble for places

from Mario Modiano

ATHENS

Fewer than one out of four of the 82,939 candidates sitting the entrance examinations for Greek universities, graduate schools and technical colleges will find a place for the 1977-78 academic year.

They are competing for 12,340 university places and some 7,000 vacancies in job-oriented technical colleges. Among the candidates, 19,517 were trying for the universities—but 42,075 of them included the higher technical colleges as a second choice. There were 3,422 candidates who chose to try only for the technical colleges.

The most popular field was economics, where there are 1,400 places for 11 per cent of the 26,103 candidates. Engineering and sciences, law, medicine and philology followed in the order of the number of candidates.

Competition was most intense for architecture, where there were 4,131 candidates for 120 vacancies, and medicine, where 9,633 students vied for 840 places.

This year, as in previous years, about 60,000 young Greeks will be left out of the system of higher education. The options remaining to them will be: universities abroad,repetition of the entrance examinations next year or employment where secondary school qualifications suffice.

It will be 1980 before the Greek Government's educational reforms are expected to eliminate the system of university entrance examinations open to all secondary school graduates. The new system begins the *selection process after the first* three years of secondary education by streaming pupils into three types of lyceos for pre-university or vocational studies. Upon successful completion of the three-year courses, the pupils of the general and classical lyceos with quality for higher education without entrance examinations, and those of the vocational lyceos will be qualified for jobs.

Australia

Crashed union travel firm rescued by airlines

from William Purvis

SYDNEY

The Australian Union of Students' travel company has been rescued by Qantas and other airline creditors.

The company, which semed likely to fold because of financial problems (*THES*, August 26), is now back in business *again under the* same management but with a much tighter accounting system.

Qantas imposed very stringent conditions on its rescue operation. They include a trust fund accounting system which virtually makes AUS Travel little more than a collection agency for the airlines.

AUS Travel had little choice in *the matter if it wished to honour its* previous obligations and keep trading. The formal scheme of arrangement is intended to enable the company to trade its way out of its difficulties—caused by over generous price-cutting on charter flights.

The depressed state of the Australian building industry is having an effect on the student numbers in schools of *architecture at universi*ties and the Royal Australian Institute of Architects says about half its members are out of work.

Enrolments in the University of New South Wales School of Architecture are 25 per cent down on 1974 and similar falls have been noted in Australia's 12 other schools of architecture over the past three *years.*

70 miles of shelves

The University of Texas has just opened a new library with a capacity for 3,250,000 books, which, it claims is the third largest academic library building in America.

Named after two black and Mexican-American teachers at the university, the Perry Castaneda Library will allow for 15 years of growth until its 70 miles of shelves are full. So far about 1,500,000 volumes have ben moved into the new structure, which will serve as the main research library for the *university's 41,00 students.*

Denmark

'Red' campus gets fresh vote of confidence

from Mike Duckenfield

STOCKHOLM

A pledge that teaching will continue at the controversial, dispute-prone university centre at Roskilde has been give nby the Education Minister, Mrs Ritt Bjerregaard.

In an interview in the latest issue of *AC-debat*, the monthly journal of Akademikernes centralorganisation, the trade union for professional workers, Mrs Bjerregaard said she had "no wish that the centre should be closed down" despite Opposition pressures in parliament to do so.

The minister told the journal: "It is my intention that the centre should solve its own problems and functio nthe same as other universities. Roskilde is included in the ministry's long-term plans and will have its share o fstudents during the coming year". However, the reorganization of teaching on more conventional lines would have to continue.

There have been consistent demands to either close the seven-*year-old experimental centre or* make it an affiliated College of nearby Copenhagen University, ever since the Government's first attempts to get the centre to moderate many of its more radical learning innovations ran into stiff opposition from students and teachers.

After Mrs Bjerregaard suspended the centre's normal administration and brought in a three-man external rectorate to supervise changes in December 1975, more than 200 students were temporarily expelled for refusing to sit exams and Roskilde was only reprieved from closure by a two-vote majority in parliament.

Earlier this year, the centre's future was again threatened when more than 20,000 students throughout Denmark boycotted classes for several weeks in support of colleagues at Roskilde who were protesting over the Government's decision to halt intake to the two-year basic course in social sciences for a year. This, in turn, followed failure to agree a new curriculum for the course (*THES*, May 20).

The social science faculty is the largest of the three at Roskilde, which has a total student population fo 1,600. Last autumn 160 of the 350 new students entered the faculty compared with 140 for the humanities and only 50 for the natural sciences.

However, a compromise on entry has now been reached and some students will be admitted to start social science studies next February. In the meantim e, Mrs Bjerregaard has told the external rectors to press on with reorganization in the hope that, from the beginning of 1979, the centre will be able to stand on its own feet under its own administration again.

Reorganization will mean that the basic courses—in social sciences, natural sciences and the humanities—will be discipline-oriented rather than based on project work. In the past there has been strong criticism that projects took too muchtime and failed to relate to traditional degree courses elsewhere. Partly because of this, and the centre's reputation as being a haven for Marxists, Roskilde graduates have had more difficulty than most in finding jobs.

Demand for first-year places at the centre this autumn has been poor. With 330 places to fill, there were only 40 first-choice applicants *for the 100 natural science vacan*cies and 60 for the 230 in the humanities.

● Education Ministry figures show that there were only 56 first-choice applicants per 100 places on natural science courses at Denmark's five universities. This compared with: the humanities and theology (70); social science (74); psychology and teacher training (100) and medicine (127). On the other hand, there were 134 applicants per 100 places at technical, professional and commercial colleges, including 254 per 100 at colleges of education.

Holland

Budget keeps lid firmly clamped on expansion

from Lynn George

AMSTERDAM

Higher education and research is to get 5,364m guilders (about £1,475m) of the 19,951m *guilders total* and science budget for 1978. This represents an increase of 523m guilders on last year's figure.

The tone o fthe budget as far as higher education is concerned is even more restrained than previous years. The Socialist caretaker Government is still attempting to form a new Cabinet, and consequently no innovative budgetary proposals can be made. Figures for this year are almost entirely based on the working through of the Government's ongoing programme before its last March.

The broad allocation of funds for this year includes: higher vocational education 808m guilders (696m last year); running costs of the universities (including academic hospitals and inter university institutes) 3,778m guilders (3,407m), higher education and university research 129m guilders (116m) and research in institutions directly financed by the Education Ministry 340 guilders (319m).

Research policy is again aimed at making universities and Government-financed institutes increasingly more accountable for the use of limited funds. Building expansion will be severely restricted in the coming years.

*Meanwhile, in the legislative pro*gramme for the coming year parliament still has to discuss a draft Bill containing provisional regulations on the two-way flow of students between higher vocational and university education. This would make it possible for higher vocational students with particularly good results in their first year to switch to a related university faculty.

This short-term proposal is linked to the Government's long-term aim to have one single system of higher education. Details of this have been set out by Dr van Kemenade, Education Minister in his *Memorandum on Higher Education in the Future* (*THES*, October 15 1976) which still has to be discussed in parliament.

Nevts spring, Dr Ger Klein, Higher Education Secretary, also hopes to introduce a Bill for a new University Enrolment Act, which would mean a *numerus clausus* for popular courses and make use of multi-year plans for capacity drawn up by the universitys. The 124,000 university students in the 1976 academic year is expected to rise by 13 per cent during the next decade.

West Germany

Teacher training bears brunt of cutbacks

by Günther Kloss

Bavaria is to introduce a new higher education development programme. A central feature is the reduction in the number of teacher training places at all types of higher education institutions from 31,000 to 21,980.

The 125,000 student places currently available on a permanent basis will be increased by only 6,000 by 1984. But a special "emergency programme" will create an *additional 46,000 places.*

The programme involves fully using or even over-subscribing existing capacity, transforing permanent posts from *under-used units to* departments where demand is greatest and instituting between 1979 and 1990 special grants for temporray posts and equipment.

Bavaria's smaller or most recent institutions of higher education will grow fastest, with the additional specific aim of achieving a better regional balance of student places. *For example*, the new universities of Augsburg will increase from 3,665 to 8,000, Bayreuth from 687 to 5,000, and the comprehensive *universities of Bamberg from* 1538 to 3,500 and Passau from 890 to 4,000.

The old established bigger units will have to accept a reduction in student numbers, especially the universities in Munich (down from 36,300 to 25,000), Würzburg and Erlangen, the two vocational colleges in Munich and the vocational college in Würzburg.

France

Forecast of many more 'foreigners'

from Guy Neave

PARIS

Large increases in the number of overseas students at French universities are foreseen in a recent report from the *Office Nationale des Universités*, France's equivalent of UCCA.

Last year there were 821,500 students attending all sections of higher education, including the two-year university institutes of technology. Overseas students numbered 96,500

The *Office Nationale* estimates that the number of foreigners will more than double by 1985. By the mid-1980s, one student in five will be a non-French national.

Between 1973 and 1976 the average annual growth rate for French undergraduates was less than 3 *per cent. However*, the enrolment spiral among foreigners continued. Over this period it increased by hal fagain from 66,500 in 1973 to last year's 96,500—an annual growth rate of 13 per cent.

The conclusion is obvious. If French higher education has expanded it is only because of the massive influx of overseas and European students.

Most non-French undergraduates are from African countries; roughly 40 per cent from the ex-French Commonwealth, Morocco, Tunisia and Algeria.

If there is some satisfaction that a French university education is still attractive to students from Third World countries, there are nevertheless certain misgivings about the type of course they tend to follow. The report criticizes the lack of care in making sure that the qualifications gained by such students are in keeping with the economic, educational and manpower needs of their home countries.

Particularly disturbing is the growing move into arts or social sciences. In 1973/74 one overseas student in four opted for these subjects. By 1977 the figure was four out of 10.

*If there are problems with over*seas students, student exchange *between the universities of the* Nine is no less a thorny issue. French undergraduates seem reluctant to study abroad.

The French student exchange rate is in the red. With the possible exception of West Germany, France imports more EEC students than any other Common Market country. This has unwelcome financial consequences. The Government reckons that the cost per student is in the region of 5,000 French francs (£588) a year. Failure to balance out the student exchange numbers between France and other members of the Nine is costing the country around £3m a year.

Following the publication in 1975 of the Mascler report on student mobility in Common Market countries, the French have not been backward in pointing out the apparent lack of British commitment to Europe. The accusation, though veiled, is repeated in the report. Foremost in fostering European student exchanges, it suggests, are Belgium, West Germany and France. The hint is that Britain should mend her ways.

South Africa

Book tax speeds up library planning

from Martin Feinstein

CAPE TOWN

The Government's five-month-old tax on book and periodical imports has paradoxically emerged as a hidden blessing for the long-term plans for the reorganization of South Africa's university libraries.

The 15 per cent customs' surcharge, affecting the 95 per cent of South Africa's academic books which are imported, originally drew sharp criticism from a wide range of academic groups, including the Committee of University Principals, the National Library Advisory Council and individual universities. By drastically reducing their purchasing power, the tax has further hit libraries straining to cope with rising book prices.

But in the longer term, the tax is certain to boost plans for the national coordination of library acquisitions presently being formulated by two top-level Education Department committees.

One of these committees, under the auspices of the National Library Advisory Council has, for the past five years, being studying the feasibility of a central computerized register of library holdings and purchases called MARC (Machine Readable Catalogue). Duo early next year, the committee's report is expected to favour the centralization of the purchases of scholarly libraries throughout the country.

Professor Don Kesting, head of the school of librarianship at the University of Cape Town—which has the largest university book-stock in South Africa, at 670,000 volumes —*has estimated that such planning* will enable universities to slowly reduce their library backlog, which *has accelerated since the introduc*tion of the import tax.

South Africa's academic libraries together hold about two million volumes, of which only one-fifth are purchased jointly every year. Professor Kesting estimates that national planning would enable universities to have access to over 100,000 more titles annually.

The success of such a plan would depend not only on efficient com*munication between individual* libraries, but also on their willingness to adapt to a new and untried system which would entail a tightly integrated distribution network between "specialist" libraries to cater for the academic community's growing needs.

The plan's second component—a theoretical study of the feasibility of a national library network by the NLAC's division for scholarly libraries and information centres—has estimated that it would take 10 years for some form of national coordination to become effectively established, if the MARC report is favourable.

Even if the MARC report is accepted to pave the way for a nationally integrated library system, there are other potential snags. It is still uncertain whether the Department of National Education, under whose jurisdiction academic libraries fall, is prepared to finance the cost of such an undertaking. One reason is the Government's current policy of cutting expenditure to a minimum. With the cut in the Education Department's budget earlier this year, it seems unlikely that there will be large-scale financial support for such an ambitious project.

Ironically, the tax on imported books and periodicals may rebound on the Government. Most university and State libraries are State-subsidized, so that the spending power diverted to paying import duty is likely to lead to increased pressure on the Government for larger subsidies.

"The Government is taxing itself, ridiculous though it may seem. And the administration involved is ridiculous", said one librarian who, like many others, is hoping that the Government will quietly drop the tax for academic institutions.

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Morale as well as money

The present university teachers' pay claim is as much about morale as about money. On whether it succeeds or not depends not only the standard of living of university teachers next year but also whether the universities as a whole manage to shake off their present mood of collective depression.

Two unhappy events were largely responsible for the onset of this depression, the collapse under the pressure of intense inflation of the quinquennial system of university finance and with it many cherished ideas about their financial independence, and the peremptory cancellation by the Government of the cost of living increase awarded to university teachers. A little was done to remedy the first when the University Grants Committee was allowed earlier this year to indicate tentative totals for university income in 1978-79 and 1979-80. A little should now be done to remedy the second by the Government agreeing to rectify, at least partly, the "anomaly" in university teachers' pay.

This "anomaly" has grown to almost Freudian proportions in the collective consciousness of university teachers precisely because it seemed, and still seems, so unfair. At a time when there was fairly widespread public concern about the performance of school teachers they were awarded a substantial salary increase, while university teachers about whose performance there could be no similar anxiety were refused.

The comparison with their colleagues in advanced further education is even more painful. The Houghton committee argued for broad comparability of pay between the university and non-university sectors of higher education, a principle that *The THES* would endorse. A substantial number of university teachers, of course, are not even prepared to concede that much: they believe they should be paid more. However, everyone surely can agree that they should not be paid less which is too often the case today.

The less charitable will argue an incomes policy must always be a blunt weapon. Certainly that has always been true in the past and it is often the reason why such policies collapse under the weight of the anomalies they have created: yet to believe that this is inevitable and that incomes policy can not be sharpened into a rapier that can discriminate between rival claimants on the basis of public policy is a depressing conclusion for higher education. Everyone working in universities, polytechnics and colleges is subject to a permanent although covert incomes policy as *The THES* argued a few weeks ago.

The less charitable may go on to argue that in any case it is the Association of University Teachers' own fault, first because they refused to be included in the Houghton exercise and secondly because they failed to foresee the likely onset of the incomes policy. Such criticisms are certainly unfair. The trouble arose mainly because of the different timetables that salary negotiations follow in the two sectors of higher education, a confusion that should surely be resolved as soon as practicable.

Yet there is some truth in the subsidiary suggestion that once the anomaly existed the AUT did not go about their campaign to secure its rectification in the best way. Baying at rather bemused Ministers of State is not an activity designed to win public or official sympathy. The association's special council meeting in Londontoday should bear this in mind when they consider what sanctions may be appropriate in pursuit of their present claim. On the whole dignity seems a better keynote than rancour.

Above all the AUT should resist the temptation to hit their own universities and certainly students rather tehan the Government. This will be difficult because university teachers apparently have many weapons they can use against the first target but very few that can really hurt the Government. Yet it would almost certainly be counter-productive to refuse to admit new students by attempting to impose some kind of ceiling on the expansion of student numbers or to set and mark examinations. Both actions would be interpreted, perhaps unfairly, as an attempt to reduce educations opportunity for the sake of a selfish dispute.

Instead the AUT should emphasize the point that the present unsatisfactory pay for university teachers is damaging the universities as a whole because by far their largest investment is in human capital. In this way the association can form a powerful alliance with both university authorities an dstudents to press their case. For their part the university authorities should acknowledge in the most public manner possible the continuing damage that is being done to university morale by this endemic grievance over pay. Most vice-chancellors already do so but in a time of intense competition for resources a few may be tempted to argue that what is saved on academics' pay can be spent elsewhere. This is a false equation.

As for the Government they should back winners not losers. British universities are an incomparable asset. Higher education is something we still do very well by international standards. In March Mrs Williams went a little way towards recognizing this fact with the grant settlement: she now has another opportunity to take another modest step in the same direction with the university teachers' pay claim in October.

How not to help libraries

Librarians have suffered a two-pronged attack in the last five years. Like the rest of higher education, they have endured a squeeze on funds. But at the same time their basic commodity, books, has increased in price far more than even the average rate of inflation, and academic books more so than other books.

According to latest figures from the library management research unit at Loughborough University, the price of academic books in the last two and a half years has risen by 96 per cent. The average price for the first half of this year was £9.95, compared with £4.59 in 1975.

It is no surprise, then, that university book buying has slumped. A recent National Book League report showed only four universities had significantly spent more on books in the last six years. But the problem is not only the economies made in libraries at a time of rising costs and cutting university grants. Even in more plentiful times, universities failed to spend the 6 per cent of [illegible] recommended by the University Grants Committee in the Parry report, 1967.

At first sight therefore, the suggestion of Reading University's librarian for a proportion of the university budget—he suggests 7 per cent libraries is attractive. Libraries, the cornerstones of universities, would be assured of a steady income, through good and bad fortunes of both higher education and the book trade. It would also end the great disparity between the amount spent by different institutions on their libraries. Older, more established universities tend to spend more, perhaps because they already have other basic needs such as buildings.

But it would introduce an element of control quite at odds with that first principle of university government: institutional autonomy. It would circumscribe still further the freedom they have to make decisions based on an understanding of local needs as to how their grants should be spent. Like the Atkinson report, it would take no account of the differing book needs of universities, which are related to student composition, age and rate of development.

LETTERS TO THE EDITOR

Qualifications and training of engineers

Sir,—So some engineers want to take into university engineering courses students without A level physics (*TIMES*, September 2). Of course there is nothing like taking the battle into the enemy's camp, but it does seem a little strange to put this proposition to the British Association *for the Advancement of Science* (my italics).

But does "enlarging the pool of candidates" mean increasing the number of students at any cost? Physics is not merely the study of sub-atomic and high-energy phenomena, but includes still what used to be known as "heat, light, sound, electricity and magnetism and properties of matter".

If engineering graduates are to be truly professional engineers—innovators and not just perpetuators of existing practice—they need this background. A student with, say mathematics and geography at A level would have a lot to make up compared with A levels in mathematics and physics.

If the aim is to increase the number of students at all costs, why not give up mathematics as well? I doubt whether Brunel knew much calculus or trigonometry or even used logarithms, but he was a superb engineer—in his day, and there's the rub!

Yours faithfully,
D. A. BELL,
Professor of electronic engineering,
Hull University.

Sir,—The publication of the British Association Report "Education, Engineers and Manufacturing Industry" does much to emphasize the deficiencies in the supply, deployment and rewards of engineers, but in several respects is disappointing (*THES*, September). It is difficult to criticize the work of the investigating team when they were not given sufficient time by the coordinating committee to undertake any fresh survey work but, nonetheless, disappointing when one reads the terms of reference:—

"What steps are desirable, with respect to the education (including career advice, recruitment and development of professional level engineers to improve the performance of the British Manufacturing Industry and in particular the effectiveness of production management".

and then reads that 'the report makes only limited reference to the production management aspect . . ." and even this is extremely difficult to find.

The production function is both broad and complex and little research has been undertaken so far in an effort to determine and understand how it is managed in practice. It seems therefore of little benefit to conclude, as the report does, that to increase the quality and quantity of engineers will make a significant contribution to improved performance. After all, it may well be that the *quality* of the engineer is adequate but the subsequent training and education in production/operations management is quite inadequate or irrelevant to industrial needs.

Clearly, there were limits imposed upon the team but it is difficult to understand why the team, bearing in mind the terms of reference, did not seek some data on the current education and training provision and needs for production management before suggesting changes in current engineering provision.

Reference is also made in the supporting papers to the views of sixth formers and professional engineers regarding salary, status and intelligence of other professions compared with four types of professional engineer. It is not surprising to find that the medical, legal and accountancy professions are high on the ranking list.

What is surprising, however, is that the investigating team did not recommend the adoption of a similar professional model for the future development of the engineering and manufacturing management profession. After all, we lead the world in the three professions, why cannot we, at least, consider adopting a similar three-stage model along the following lines.

The first of these is the cognitive stage where a minimum amount of knowledge is acquired before the neophyte is exposed to the real world of industry.

The second stage is one of planned experience under supervision, during which the knowledge and concepts gathered in stage one are applied and tempered by the realities of industry and the influence of other disciplines. After completion of which the young professional is given a *partial licence to practice*.

The third stage is a monitored but unsupervised period during which time the performance of the young professional is measured against previously determined and agreed objectives. Successful completion gives the professional the *full licence to practice*.

● **High levels of scarce and valuable talents**

In this respect there is within engineering and manufacturing management a need to develop an elitist approach, entrance to courses by examination not unlike the system operated in France for the Grand Ecole.

● **A powerful professional body**

To supervise and control standards, practice and professional conduct of members.

● **An awarding authority**

To award and withdraw the licence to practise.

In my view, the establishment of such an approach to education and training together with the award of licences to practice, through a professional body, ill do much to raise the standards of the engineers' profession in the eyes of society.

Yours faithfully,
KENNETH SWANN,
Faculty of Management and Business,
Manchester Polytechnic.

Marxism and learning

Sir,—Your leading article (*THES*, September 23) challenges Julius Gould on three counts. First, for failing to "identify precisely" those who are trying to subvert our academic and cultural institutions. Surely the multitude of citations from the writings of Marxists, ultra-Marxists, and satellites is all that can be reasonably expected from academic sources. In fact, Professor Gould has done more "identifying" than was necessary or even helpful to his case.

Secondly, you deplore that Professor Gould has failed to prove the largeness and seriousness of the Marixst penetration. It is a commonplace that vocal and energetic minorities, sometimes diminutive, have been able to prevail when faced with supine and indolent majorities. With all their sophistication the universities are not immune to this kind of take-over.

To discount this is to discount the lessons of Europe's recent history. But you do not depend exclusively on Professor Gould's evidence. Your own paper provides it. Your leading article is on page eight—turn now to page seven. There you will find a report of a conference at the University of Toronto which informs us that the radical politicisation of the universities has continued during recent years and you also quote Professor Jeanne Hersch of Geneva University who was—as you tell us—"horrified at the complete paralysis of her colleagues in the wake of radical politicking at her university".

You deplore that Julius Gould does not demonstrate the scale of this penetration, but when he tries to show the depth and width of this you, somewhat oddly, complain that "he lumps together" sociologists, social workers, and some others.

Your third point—a very dubious one—is that Professor Gould has no right to tell us what is wrong, unless he also spells it out for us what we should do about it. In fact, he has told us and he requires no help from me to stress this purpose which is to alert and to heighten publications of the Socialist Workers' Party instead of laughing at the name, he would discover that it is far more than the "causes" we take up (many of them things that any humane person might be expected to favour, like the right to work) cannot, in fact, succeed within capitalism. That is why we are opposed to capitalism, not the other way round.

If these beliefs are not blind, they are backed by arguments which all can read in the Marxist classics, and despite all the efforts of social democrats and parliamentary readers, there are no counter-examples. Chile is perhaps the most striking example of what happens when socialists forget the nature of the beast and listen to those who say "peace, peace" when there is no peace. If these beliefs are false, refute them; if they are true, we would be fools not to act on them.

Of course, Marxists also believe that it is at the point of production that power lies, and cannot take seriously the idea of "taking over" the universities or polytechnics, though we will continue to struggle for democracy within them. The threat to academic freedom and objectivity of scholarship comes from the other direction.

Yours sincerely,
ANDREW COLLIER,
Department of Philosophy,
University College of North Wales.

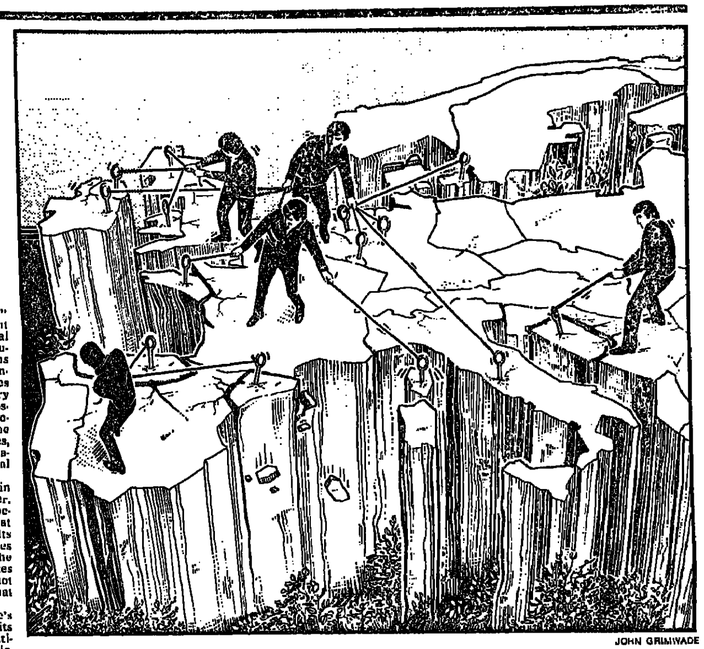
Sir,—Was it not just a tiny bit mischievous of you to have on page 1 (*THES*, September) a passage of criticisms of Professor Gould's report (plus cartoon), on page 6 a full-page article by Dr Young employing almost every intellectual trick the report describes, and on page 8 an editorial entitled "Danger of taking the threat from the Left too seriously"?

Yours faithfully,
JULIAN HURSTFIELD,
Rutherford College,
University of Kent, Canterbury.

Letters for publication should arrive by Tuesday morning at the latest. They should be as short as possible and the editor reserves the right to cut or amend them if necessary.

Is the nation state still a useful concept? Hedley Bull argues that it is, but that states could form the basis of a more desirable international order

The structures that prevent collapse into anarchy



JOHN GRIMWADE

The survival of the United Kingdom as a sovereign state is threatened from two directions: within, Celtic nationalists call for its break-up, and without, European federalists seek to merge it in a wider whole. Yet if one or the other of these things were to happen, it would signify not the demise of the sovereign state as an institution, but simply the elimination of a particular sovereign states—a change in the number of such states in this part of the world.

The advocates of an independent Scotland, a united Ireland and of a European federation have just as deep a belief in the viability of the sovereign state as do those who wish to conserve the United Kingdom in its present form. And what is true of this part of the world is also true of the world as a whole. Everywhere there are states that may cease to be sovereign over the particular segments of the earth and of the human population to whic they lay claim, but if they do, it is other states that seem likely to succeed them.

Like the Scottish Nationalists and the IRA, the Quebec separatists, the Zimbabwe liberationists, the Palestinian Organization, along with their counterparts among the Croatians, the Eritreans, the Nagas, the Papuans, the East Timorese and countless others, are statist in their aims; they seek to create new states, to take control of existing states, to merge or amalgamate or to change the boundaries of states. They do not seek to establish new kinds of political and legal entity in the world.

Nor does the experience of regional international organizations provide much evidence that attempts to provide alternatives to Organization of African Unity, the Organization of American States, the Arab League, the Association of South East Asian Nations, are exercises in cooperation among governments.

In the case of the European Community one may point to developments—the latest being the projected direct election of the European Parliament—that do suggest a potential threat to the sovereignty of member states. But even here the evidence is ambiguous, not simply because of the strength of the forces resisting this threat, but also because those who are working to deprive Europem states of their sovereignty are working (at least in many cases) to create a European superstate that will itself have the attributes of sovereignty.

We are often told today that the sovereign state is in decline in relation to other actors" in world politics (or, in the more repellent phraseology of contemporary international bodies, that "the states-centric paradigm is now obsolete"). If this means that world politics is shaped not only by states but by nations, ethnic groups, subnational and transnational political parties, ideological movements, multinational business corporations, international and supranational organizations and by individual human beings, this is something which only a fool would deny.

The subject matter of world politics embraces all the political forces at work in the great society of mankind. The so-called "billiard ball theory of international relations", supposing that anyone had ever advanced it (in fact, of course, it is a straw man designed to make banalities seem impressive) could be meant only as a legal and doctrinal fiction, not as a description of social reality.

It is absurd, however, to speak as if the role at present played by "non-state actors" in world politics is somehow new or unprecedented. It is hardly possible to write the history even of eighteenth and nineteenth century Europe, which the "states-centric model" is supposed to have fitted, without taking account of the ideological convulsion of the French Revolution, or the impact of nations struggling to be states, or the conquests of the East India Companies or the depredations of the Barbary powers. Still less would it be possible to deal in this way with European international history in the sixteenth and seventeenth centuries, or with the wider theme of relations among independent political units in the world as a whole.

But is the role of the state in world politics not becoming weaker, while that of its competitors is becoming stronger? The view that the state is in danger of losing its primacy (and that our own times have much in common with the pre-Westphalian origins of the states system, when that primacy was not yet clearly established) is one that deserves to be taken seriously.

One of the bases of the state's traditional primacy has been its claim to a monopoly of the legitimate use of force, both domestically and internationally. States deeply divided from one another have nevertheless sought to preserve solidarity in recognizing one another's right to the international use of force, and in denying this right to other groups. Yet it is clear that states today are having difficulty in making good this claim—as guerilla groups resorting to force across jurisdictional boundaries are backed by UN majorities, proclaimed to be waging just wars of national liberation, and extended the protection of the laws of armed conflict.

Another basis of the state's primacy in the past has been its claim to supreme jurisdiction or authority over its citizens. States have collaborated in recognizing one another's supreme jurisdiction, thus entering into a conspiracy of silence about the rights of one another's citizens, and denying all standing in international society to individual human beings and to non-state groups. Yet the prevailing moral sentiments of today assert (as in the Universal Declaration of Human Rights and similar documents) the rights that men have against their state, and (as in the concepts of "war crimes" and "crimes against the peace") the duties they have that take precedence over their duties to the state.

Moreover, these moral sentiments assert (even if agreed international law does not) the right of individuals and groups to look beyond their state for protection of their rights, and the right of outside bodies to extend this protection to them—to uphold civil and political rights in eastern Europe, economic and social rights in the West, or rights of national self-determination in southern Africa.

The state's primacy has rested ultimately upon its ability to attract greater loyalty or allegiance than the other groups into which men in world politics cohere: in its dynastic phase, loyalty to the ruler of his house, and in its popular or national phase, loyalty to the people or nation from which the state's authority is deemed to derive. But today, in many parts of the world, this primacy of the state as the object of political allegiance is no longer assured.

The chief rival source of allegiance is not the class nor the transnational ideological movement nor the international organization of which individuals and groups other than the state, are widely recognized to have legal and moral rights and duties, as has been the case in previous periods. But it is still states that determine whether or not rights held against a state are protected, and whether or not men are held to acount for the duties they have that override their duties to a state. And it is still states—not individuals or other groups—that are perceived as the principal bearers of rights and duties in world politics.

The state's ability to attract allegiance is uncertain in cases where there is doubt as to whether it corresponds to a nation; but in the Western and socialist worlds there are still many nation-states in good standing, and in the Third World there are many countries where the eventual creation of nation-states has a fair prospect.

A case can also be made for the view that, in a longer perspective, the role of the state is expanding rather than contracting. Firstly, it has been expanding geographically or horizontally. Two centuries ago most of the non-European world lay beyond the bounds of the sovereign state—in the sphere of the Islamic system, or of Oriental empires, or of tribalism. Today the sovereign state is established, however imperfectly, throughout the world as a multiplied, their heterogeneity is whole. The number of states has more striking, the currency of statehood has been debased; but for the first time the sovereign state is the common political form of the whole of mankind.

Secondly, vertically. International or intergovernmental dealings now concern economic, social and ideological matters, as well as political and strategic. The states system has extended its tentacles to deprive business corporations and bankers, labour organizations and sporting teams, churches and political parties of the standing as autonomous actors that they once enjoyed.

Thirdly, any tendency of "other actors" to usurp the role of the state is inhibited by the tyranny of existing normative concepts and practices. Ethnic groups, transnational political parties and international organizations may edge their way closer to the centre of the stage; but there are no agreed rules which define their place in a universal political order. Thus those putative challengers of the system of states find themselves coming to terms with it.

Nations are content to have the rights of nations, but seek also to become states. International organizations proclaim that they are founded upon the sovereignty of their member states, or else seek to become superstates. A transnational political movement—such as the communist movement—either becomes the agent of a foreign communist state, or, as in the present case of "Euro-communism", seeks to demonstrate loyalty to its own state.

Is it not time to challenge this tyranny of existing concepts? There is no lack of alternative schemes for universal political organization. No one can seriously imagine that the world is now ripe for an imperial or hierarchical system, or for a universal republic or cosmopolis. But more though might be given to the alternative of a universal political order in which—as in medieval Christendom—the prevailing norms permit overlapping or segmented authority and multiple loyalties, and do not confer sovereignty or supremacy upon the state over "other associations".

Such a conception is no arbitrary blueprint, but builds upon developments in world politics that are acutally taking place. It requires an attempt to devise agreed rules that would impart order and predictability to the confusion which might otherwise take the place of the states systems.

We might imagine that in the United Kingdom the control of force, the right of superior jurisdiction and the loyalties of citizens were no longer concentrated in a single authority in London, but divided among national, subnational and supranational authorities. A Scottish authority in Edinburgh, for example, would have succeeded in depriving the United Kingdom of its sovereignty, but at the same time would have stopped short of claiming sovereignty for itself.

A European sovereignty in Brussels would also have contributed to undermining the sovereignty of the United Kingdom, but would have no thought of itself becoming a European superstate. Diplomatic relations, world political status, perhaps control of the international use of force would be enjoyed by the Scottish and the European authorities, as well as by the British one. A parliament in Glasgow would have divided allegiance as between the authorities making claims on him in Edinburgh, London and Brussels.

The difficulty with the neo-medieval alternative, however, is not in devising its rules, but in securing a consensus about them. The medieval system of overlapping authority was founded upon a common culture, which is not available today: even so, it gave rise to more continuous and ubiquitous violence and insecurity than the modern states system.

The great virtue that the states system has in relation to other possible forms of universal political organization is that a consensus in favour of it—however tentative and precarious—actually exists. If it were to break down under strain it might well be replaced not by a neo-medieval or any other form of political order, but by a slide into chaos.

The author is Montague Burton professor of international politics at Oxford University, and author of The Anarchical Society, *published earlier this year by Macmillans.*

BOOKS

Unravelling the typological and the typical

Literary Uses of Typology from the late Middle Ages to the Present
edited by Earl Miner
Princeton University Press, £18.80
ISBN 0 691 063 273

There has been something of a boom in literary typology of late, and it is due largely to American enterprise. English literature has not been neglected, but the principal effort has gone into American typology, and the two most important books are Ursula Brumm's *American Thought and Religious Typology* (1970) and Sacvan Bercovitch's collection, *Typology and Early American Literature* (1972).

On the face of it, this revival of interest in the subject is to be welcomed for at least three reasons. Certain matters that can be only imperfectly understood with conceptual equipment that is limited to varieties of symbolism or allegory may now be more precisely expressed; there are clear benefits in the quite short run for the reading of poetry and devotional (but not just devotional) prose, especially in certain periods; and the interdisciplinary character of properly conceived research in the field ought to have some power to reduce the strife of the faculties.

Typology has therefore become, it would appear, a popular option in the graduate schools, and it must have seemed high time somebody sponsored a conference. This book is made up of papers prepared for such an occasion by scholars of varying seniority and scope. There are almost 400 pages of it and, like all books from the Princeton University Press, it is handsomely produced, though it contains a number of misprints. What you get for its price—one of the most impressive aspects of the book—is a batch of 11 articles, two of them immense, plus a preface and an afterword, the latter the most interesting single piece in the collection, by the learned Professor Miner.

The book is on the whole rather tedious, which is sad considering the interest of the theme. The main reason for this failure is, I think, a neglect of the interdisciplinary possibilities. Apart from a few perfunctory glances over the fence, few contributors have tried to understand and use the typological research of modern biblical criticism, though that is where they ought to have looked for models and inspiration had they decided to be more speculative. Contributors tend instead to go through a limited methodological ritual and then, having read through their shirts of likely literature, add their bit to the total of information concerning literary use of types.

The editor himself alludes to the most striking of these limitations: everybody seems to think that he will be accused of methodological laxity if he fails to define typology very strictly (for instance, as "the prefiguration of events in the life of Christ by events or figures in the Old Testament") and to disallow usages which do not exactly comply with this one. When Emerson, Melville and Hawthorne use the word "type" more freely, though in a recognizably related sense, Karl Keller says they are being "careless". He is in fact arguing that the sense of the word was changing, but cannot rid himself of the notion that the strict biblical definition is the only right one, and that the other usages are deviant.

Rigorous as this sounds, it is not good scholarship; most of the interest in studying biblical typology in mid-nineteenth-century America arises precisely from the survival of the biblical type, and the intellectual habit that it manifests, into a world which was giving the word many new senses, all interrelated and very complex. Hawthorne, and the others to a lesser extent, were well aware of this complexity, and what is "careless" is to dismantle it in the interest of a shibboleth. I am probably putting the matter a little too strongly, but I mean to make this charge of "carelessness" an example. A premature rigour prevents many contributors from saying anything of much interest at all, and none seems to care about the latent and interesting issues that become visible only when one begins to think more freely about the whole habit of typological thinking in relation to narrative.

In the opening essay Professor Robert Hollander attempts a categorization of typology in medieval literature, warning us that used too freely, the concept becomes meaningless, but adding that we cannot always be sure that "our authors were . . . mindful of the sorts of distinctions we claim for them". There seems to be some muddle here. We carelessly use "typology" to mean: the practice of using the types; the study of the types; and the study of the study of the types. Mark did one, the Mathers, seventeenth-century Puritans in America another, and we who are "into typology" do the third. Doing the third, we can say that medieval authors, who did the second, distinguished between natural, decorative, improper and Christian typology, though they may not have known they were doing so. The hermeneutical implications of this way of thinking are serious, but few contributors concern themselves with such implications. Hollander, when he warns against too liberal a use of the concept of typology (which one?) is not, of course opposing the Robertsonian practices which some people would certainly call wild, but the easy modern habit of saying that so-and-so (Santiago in *The Old Man and the Sea*, for instance) is a "Christ figure". But although we may detest such ways of speaking, it is not so easy as it looks to say why they are disreputable. The matter of what might be called "vulgar typology" calls for some thought beyond the mere assertion that it is unscholarly and solecistic.

I should explain that Hollander's piece is much more valuable than I have implied. He is concerned to distinguish between what he calls "natural typology" and Christian, and he begins to make the important point that both are manifestations of what he calls "the typological consciousness"—a point no less valid because it is totally unacceptable to Reformation theology. What is wrong is the assumption that we must nevertheless forget about this natural typology when we are busy with the Christian kind. For if we do so, the whole exercise becomes a heedless attempt at pure historical description, or a merely pious exercise. When we think about Hollander's distinctions between different kinds of typology we ought to think of them as variant forms of the same practice. "Decorative" typology—a secular or even playful use of biblical or classical references—obviously does occur in literature, medieval and modern; "improper" typology can be as serious as it is in the *Ovide Moralisé* or as winsome as it is in Malamud's *The Natural* or in John Barth; this gamesomeness, as Theodore Ziolkowski says in his essay on "Twentieth-Century Figuralism", assumes that a typology meant to be easily decoded can fulfil a very complex function; it may at once satisfy our desire for occult forms of completion, for indications of a comforting *pleroma*, and at the same time allow us to be amused that as very intelligent modern people we should still have a desire of that kind, and a need for that kind of comfort. It thus seems reasonable to argue that the playful types are, in the end, serious, as serious as the *Ovide Moralisé*; and to say that the tasking of narratives of this sort is different from the narrative construction of the evangelists primarily by its announcing that there seems to be a certain remarkable oddity in behaving in such a way.

Karlfried Froehlich contributes a learned, valuable and splendidly organized study of early fifteenth-century hermeneutics which one would have been glad to find anywhere, and might have found elsewhere, since it has no acute relevance to the theme of the book. He focuses upon the opinions given at the Council of Constance in 1415, when the members were asked to say whether certain Assertions, extracted by Gerson from a theologian's defence of the "tyrannicide" of the Duke of Orleans, were worthy of condemnation. Eventually there was a majority against condemnation. The issue involved not only high politics but deep hermeneutics.



"The Temptation of Eve" by William Blake, an illustration from Blake as an Artist by David Bindman, Phaidon Press, £9.95

The main question was whether it was right to argue that "always to keep the literal sense in holy scripture means to kill one's soul". It is a question that recurs through the whole history of biblical commentary, and in rabbinical hermeneutics also. In what sense is the literal sense sufficient when it appears to recommend baseness or folly (circumcizing all males, marrying a harlot, or lending your wife to Pharaoh)? There are many different answers. Considered as a whole, the New Testament suggests that the text telling you to pluck out your eye is not to be obeyed as *pied de la lettre*. Again, a proposition might have been true at one time but not now. Furthermore, "the letter" of 2 Cor 3:6 may not be equivalent to "the literal sense"; and in speaking of that literal sense we perhaps ought not to set it against a "spiritual sense", sharply distinguished from "carnal", but rather think of the two as interdependent.

So there evolved a doctrine which would later enable the theologians of reform to insist on the literal without sacrificing the spiritual sense, the *duplex sensus Moralis*, with its own figure of the husk and kernel of a nut. For the defenders of tyrannicide, "Thou shalt not kill" is not a self-evident text; to get to the kernel you must discover the intention of the writer. And even Gerson, their chief opponent, had allowed that "the words of Scripture are equivocal". But he also thought that it was wrong to construct yourself a hermeneutics which enabled you to say a text meant whatever you liked, and to go on to commit murder.

Obviously this is a perennial problem in hermeneutics, though it finds only limited expression here. If the literal sense is held to be fallible or incomplete, the authority of all Scripture is undermined: Yet one cannot entrust the double sense to all comers; they may misuse the intention of the author. So far we may think we can hear pro-echoes of a continuing debate. But the interesting difference is that these arguments did not apply to human writings. The tyrannicide theologian, for Gerson, is wrong, however right he may sound, unlike God, who is right however wrong he sounds.

About the remainder of the essays I shall have to be briefer. Thomas P. Roche, Jr has an essay on Tasso which incorporates some interesting observations on types, though they could stand further expansion. Ulnaldo on the Mount of Olives is not typological, not a Christ figure. (It is the kind of distinction he learnt from his teacher Rosemond Tuve). "Typological figures are, true, in ways that human imitations, even of divine providential history, cannot be . . . the loss of the distinction between typological and tropological is an important part of the vast stylistic shift that occurs in Christian literature between the sixteenth and the twentieth century." Barbara Lowalski discourses learnedly on the English seventeenth century, finding that Donne, Herbert, Vaughan and Traherne, as well as Milton, make "some special use of this time-honoured symbol-system". Steven Zwicker looks at the period between Marvell and Pope, with much careful annotation but little new light. A more general essay by Paul J. Korshin shows how English typology grew "abstracted" between 1650 and 1820, and in doing so extended its predictive authority to secular history and politics. This is a very long piece, and it is often a bit thin. Was it really new to think of the past as "scattered with significant events and characters"—did this practice begin only with a secularization of the types? Are "character types" similarly remnants of biblical typology? The answer, rather obviously, is no, in both cases. May it be said of the eighteenth-century novel that "it provides a field for a unique literary operation, the blending of allien literary forms and methodologies, the character and the typo"? No, it may not.

Perhaps the revival of interest in Aesop, and in fables generally, had something to do with the secularization of types, but it sounds very much like a wishful guess by somebody who is looking to his research to find learnt from it. In the essays of Froehlich and Hollander, and especially the first, most readers will find authority, which connotes first-class scholarship. Some of the other writers were able enough, but appear to be doing typology when they might as well be doing something else. The subject is vast, interesting and important; which implies that the powers required in a scholar who can comprehend, and say something valuable about it, are exceptional. When such a scholar arrives he may find some use for this book.

Frank Kermode

METHUEN

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Education Paperback £1.80

BOOKS

A childlike curiosity

The Grasp of Consciousness: Action and Concept in the Young Child
by Jean Piaget
Routledge & Kegan Paul, £8.50
ISBN 0 7100 8400 5

Thought and Knowing: Studies in Genetic Epistemology
by Beryl A. Geber
Routledge & Kegan Paul, £5.75
ISBN 0 7100 8500 1

The prospect of a new book by Piaget raises a psychologist's intellectual pulse a little. What is the current status of genetic epistemology now—retrieving the entire history of geometry from the efforts of young children to fit toy railway tracks together? Relating the way children describe slinging a ball at a target to Freud's notion of the unconscious? But, of course. The question Piaget has posed for himself in *The Grasp of Consciousness* is how children attain "cognizance", that is, become consciously aware of their actions in carrying out simple skills.

Take the task of walking on all fours, for example. Apparently, the very most children and most adults depart from logicians and mathematicians) do it is by the following procedure: move the right hand forward and then the left hand forward and then the right knee. What young children describe themselves as doing, however, is something quite different. Four-year-olds tend to say they move one hand and then the other, and next one leg and then the other.

Only when a child gets to be seven or eight years old can he be encouraged to give an accurate description, especially by making him stop and think carefully about what he is doing. With younger children this tactic fails, according to Piaget, because they lack the notion of the reversibility of actions—the effect of any action such as moving a doll from X to Y can be undone by a reverse action such as moving the doll from Y to X. "There is," he says, "a close natural link between this reversibility and what is involved (a sort of retraction) when a subject becomes conscious of an action that normally takes place unconsciously and quasi-automatically . . .". This statement is Piaget in epitome. A puzzle is solved by a marginal verbal formula: he provides no evidence that an appreciation of reversibility even correlates with an ability to give an accurate description of walking on all fours.

The remainder of the book presents a long series of similar studies carried out by Piaget and 14 of his collaborators. Children are called upon to hit a target with a sling, to make a ping-pong ball bounce backwards by spinning it, to slide objects down a complex path on a slope, to play tiddlywinks and so on. (If you ever wondered what happened in the chaps who invented all those ingenious tests used by the War Office Selection Boards, they are alive and well and living in a Genevan nursery.) However, all this admirable industry scarcely enables Piaget to advance his argument.

Even if Piaget had succeeded in relating cognizance to his theory of the stages in a child's intellectual development, a moment's reflection suffices to establish that something rather silly would have been achieved. Consider, for instance, the simple skill of whistling. As Bacall said to Bogart, "You know how to whistle, don't you? You just put your lips together and blow". This admirable description, which few of us could better, nevertheless reflects a deplorable failure in cognizance. There is very much more to whistling; yet, our lack of awareness can hardly be attributed to our having failed to attain reversible operations. The same conclusion could well be drawn from our cognizance of speaking a sentence, riding a bike, balancing a stick and many other mundane skills.

It is no wonder that Piaget characteristically evokes such mixed reactions from psychologists; and *Piaget and Knowing*, a book of eight essays based on a series of seminars at the London School of Economics, displays most current attitudes to him. Rogor Holmes illustrates the hagiographical approach in a style that out-Piagets Piaget. He is concerned with the contrast between empiricism and psychoanalysis. Empiricists, he says, are interested in the "present", whereas psychoanalysts are interested in the "private past"—a curious view that hardly seems to do justice to either group. He proposes to repair the breach between the two schools by recourse to Piaget's work.

Eric Lanzer represents the exegetical approach (with a ding of critical sour). He tries a large-scale study in which he tries to pin down the relations between linguistic competence and memory and performance on various of the standard Genevan tasks. Between the disciples and the critics are those scholars who merely lean on some of the basic Piagetian phenomena in order to support their theorizing. This ploy has become increasingly popular among students of child language; it is adopted here by Gisela Szagun in her essay on children's acquisition of tense, and by the editor in her essay on mother-child interactions within the framework of social psychology.

Finally, there are the critics, who contribute to the volume three cool but devastating essays. Peter Bryant has established that four-year-old children can make transitive inferences such as "A is longer than B, and B is longer than C; hence, A is longer than C", even though Piaget has argued that such deductions are not mastered until reversibility is attained at the age of seven or eight. The four-year-old's problem is, in fact, not a logical one but simply to remember the premises, or to appreciate the relevance of an inference to the task in hand.

In a subsequent essay, Hans Furth, a noted defender of the Piagetian school, argues that since four-year-old children often make an inappropriate recourse to the schema for transitive inference, they have not really acquired it. Of course, one could define competence in these terms, but it would seem to be a mistake. Would it be argued that a child does not know how to curtsey because she does so only to the milkman and not to the Queen? Peter Wason contributes a critical essay in which he uses his work (and, since I should declare an interest, some of mine) to cast doubt *en passant* on the level of formal operations. Norman Hotopf illustrates in nice detail the implausible and inconsistent nature of Piaget's theoretical account of visual perception.

Piaget, like many geniuses, often thinks in a singularly childlike way. He is highly egocentric: his consideration of the work of other psychologists seldom amounts to more than a few opportunistic asides. He does not attempt to test his hypotheses by searching for counter-examples. This strategem, one of the cornerstones of the level of formal operations, eludes him: he works by amassing large amounts of evidence that he sifts inducively looking for corroboration of his theories. He is apparently unable to lay out an argument with deductive clarity. His theoretical writings are generally so repetitive, prolix, opaque that they defy translation; they can only be transliterated. What, then, is the secret of his deserved success? The answer is threefold: productivity, longevity, and an unrivalled capacity to ask the right questions. He shares with young children a propensity for answering them in strikingly tendentious ways.

P. N. Johnson-Laird

Enlightened common sense

Behaviour and Misbehaviour: Explanations and Non-explanations
by Nigel Walker
Blackwell, £5.00
ISBN 0 631 17810 4

Although Professor Walker states that his book "is chiefly concerned with the relationship between excused and unexpected behaviour, and especially those varieties of the latter which psychiatrists tend to call 'abnormal' and sociologists 'deviant'", it should be made clear to prospective readers that his concern is an essentially methodological one. This is in effect an essay in the philosophy of the social sciences with especial reference to criminology and to some of the methodological views of other distinguished criminologists.

As such it is brief, clear and clearly on the side of what might be called enlightened modern common sense. In any given context the mark of an adequate explanation is that it satisfies the questioners curiosity; in that sense explanations are relative to questioners. There are, however, other tests which a satisfactory explanation must pass; there is, so Walker argues, something fundamentally unsatisfactory about explanations in terms of final causes, in terms of mental causes and about what he calls classificatory explanations. But it is a mistake to think that satisfactory explanations are necessarily all of one type.

Here, following among others Dray (whom he mentions approvingly) and Gallie (whom he does not mention), Walker distinguishes between what he variously calls necessity or likelihood (i.e. scientific) explanations—broadly speaking, explanations in terms of *ceteris paribus* sufficient conditions—and possibility (i.e. narrative) explanations—broadly speaking, explanations in terms of necessary conditions. Scientific explanations have, unsurprisingly, their place in the study of human behaviour; but "often a possibility explanation is all we want, or all we have any hope of getting". In any case, it is absurd to look for one overall, unitary cause of such a culturally and otherwise relative range of behaviour such as "crime". "The quest for a general theory which will account for all instances of crime or deviance or misbehaviour makes no more sense than would a search for a general theory of disease."

This is, then, a sturdy, sensible book which may be read with profit by criminologists and other associated social scientists and by their students. It may also be read as an eminently accessible introduction to these areas of philosophy by students in that subject as well.

Alan Montefiore

Philosophical Foundations of the Three Sociologies
TED BENTON
University of Essex

Offering a critical evaluation of empiricist and positivist theories of knowledge, this book will be a valuable text for all students of the philosophy of the social sciences. It investigates some classic attempts at using empiricism and positivism to provide the philosophical foundation for a scientific sociology. *International Library of Sociology* £6.50

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THE LONDON HOSPITAL MEDICAL COLLEGE
(University of London)

LIBRARIAN

Applications are invited for the post of Librarian, which will become vacant on the 1st January, 1978. Candidates must possess an appropriate library qualification and preference will be given to those who are graduates and have had substantial library experience. The salary of the appointee will either be within the scale, £5,432/£6,855 or £6,443/£7,951 plus £450 London Allowance per annum, dependent on seniority. It is anticipated that there will be Revised Salary Scales before the commencial date of this appointment. The post will be eligible for superannuation under the USS.

Further particulars may be obtained from Mr. H. P. Laird, Secretary, The London Hospital Medical College, Turner Street, London, E1 2AD (Tel. No. 01-247 0544). Applications (3 copies) giving full details, including qualifications, experience and the names of two referees, should be sent to the Secretary by the 31st October, 1977.

Applications are invited for a

SENIOR POSITION IN SHAKESPEARE AND RENAISSANCE DRAMA

Applicants should have distinguished publications in this area and experience teaching and supervising graduate students.

Rank and salary will be commensurate with qualifications and experience. The appointment, subject to the availability of funds, would be effective July 1, 1978.

Applications should be sent by December 1, 1977, to Professor John T. Ogden, Acting Head, Department of English, University of Manitoba, Winnipeg, Manitoba, R3T 2N2.

MACQUARIE UNIVERSITY
Sydney, Australia
SCHOOL OF BEHAVIOURAL SCIENCES

SENIOR LECTURER/ LECTURER
in the area of Psychological Measurement, Research Design and Data Analysis

Applications are invited for the position of SENIOR LECTURER/ LECTURER IN THE SCHOOL OF BEHAVIOURAL SCIENCES, tenable not before 1st May, 1978. The position involves teaching and consulting at both undergraduate and postgraduate levels, primarily in courses in psychological measurement, research design and data analysis, but contributions in other areas of the successful candidate's special qualifications may also be invited.

Preference may be given to a candidate with postgraduate qualifications in psychology or in a closely related social science, a high level of training and expertise in statistics, and substantial consulting experience in the analysis of psychological investigations. An interest in multivariate analysis and in the problems faced by students with limited mathematical background would be a distinct advantage.

LECTURER IN SOCIOLOGY

Applications are invited for the position of LECTURER IN SOCIOLOGY, tenable not before 1 February 1978.

The position involves the development of coursework and research in the sociology of culture and ideology. This is one of three core areas being developed in the discipline, the others being (a) class and power structure, (b) gender, family structure and sexual oppression. The appointee will take principal responsibility for undergraduate courses in this area (currently Ideology and Art, and Sociology of Knowledge) and supervision of honours and graduate research. Candidates will normally be expected to have relevant teaching experience; and either a higher degree or other relevant research or practical experience after an honours degree. Knowledge of Australian society will be an advantage.

The salary will be within the following ranges — Senior Lecturer $A19,676-$A22,955; Lecturer $A14,632-$A18,262.

Further information about the University and advice regarding the method of application should be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, or from the Registrar, Macquarie University, North Ryde, New South Wales 2113, Australia.

Application close on 14 October, 1977.

University of Melbourne

LECTURESHIP (LIMITED TENURE) IN MODERN CHINESE in the DEPARTMENT OF EAST ASIAN STUDIES

Applications are invited for a Lectureship in Modern Chinese. Applicants should be graduates in Chinese and hold a first degree, preferably in the field of language or literature. The language of instruction is English. In addition to 20th Century literature and some classical Chinese the lecturer will be asked to teach texts in Early Modern Chinese such as plays of the Yuan dynasty and the novels of the Ming and Ching dynasties. A high degree of competence in spoken standard Chinese is considered important. For applicants who are not native speakers a period of residence in a Chinese speaking area will be considered an advantage.

The appointment is available from 1 January 1978 or as soon thereafter as possible for a limited tenure of three years.

SALARY: $A14,032-$19,262 per annum.

Further information, including details of application procedure and conditions of appointment is available from The Registrar, University of Melbourne, Parkville, 3052, Australia, or from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF. Applications should be addressed to The Registrar and close on 21 October 1977.

UNIVERSITY OF CALIFORNIA, IRVINE

Positions, both at the Junior and Senior Professorial levels, in the School of Social Sciences. Duties involve graduate and undergraduate teaching in the areas of microeconomics, econometrics, and other basic topics, especially as they relate to the subject matter of public policy. Research areas preferred; theoretical and empirical problems in the areas of public policy analysis, political economy, public choice, and other topics associated with the non-markets sector of society. Candidates' research areas should compliment the interests of the existing faculty. Applicants must possess the PhD; post doctoral training is preferred. Only applicants with outstanding research and/or references will be considered. Applications from all qualified candidates are welcomed; minorities and women are encouraged to apply. Send curriculum vitae and the names of five references (three in the case of Junior positions) to:

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School of Social Sciences,
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UNIVERSITY OF THE WEST INDIES
JAMAICA

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PHARMACOLOGY PROFESSOR OF

In the Faculty of Medicine, University of the West Indies, Jamaica. The appointee is expected to give leadership to others of the Department of Pharmacology which presents courses for the MB BS degree at the University. Duties to be taken up as soon as possible. Salary for the Junior (Medically qualified) post: J$19,926-J$22,578 p.a. (£1 sterling = approx. J$2.17). Senior (Medically qualified) post: J$21,252 p.a. (£1 sterling = approx. J$2.17). FSSU. Unfurnished accommodation will be let by the University at a rental of 8½ per cent of salary or a housing allowance of 20 per cent of salary is payable. Study and travel Grant. Up to two full passages (economy class) on appointment and on normal termination to United Kingdom. Applications (three copies) giving full particulars of qualifications and experience, date of birth, marital status and the names and addresses of three referees should be sent as soon as possible to the Registrar, University of the West Indies, Kingston 7, Jamaica from whom further particulars of the post are available (and from the appointments boards for Higher Education in the United Kingdom at 79 Tottenham Court Road, London W1P 0DT.

PAPUA NEW GUINEA
INSTITUTE OF APPLIED SOCIAL AND ECONOMIC RESEARCH

Applications are invited for appointment as

SENIOR RESEARCH FELLOW/RESEARCH FELLOW

in the following areas: (i) population (including effectiveness of family planning); (ii) rural development (including land policy; constraints on economic development; rural emigration, role of women); (iii) organizational basis for local development (including studies of local and provincial government; development of executive services; (v) macro-economic policy.

It is hoped to appoint a social anthropologist or sociologist, but other social scientists whose interests lie in these fields should also apply. The appointee will be required to undertake the training of a small number of Papua New Guinean graduate research officers, and to devote between one third and one half of his/her time to the activity. Salaries in the ranges K10,094-K15,741 (K1 equals $A1.14 as at 25 August, 1977). Overseas and other allowances are payable. Accommodation is available. The Institute was established in January, 1976, to promote research into Papua New Guinea society and economy and undertake research into social, political and economic problems in order to enable practical solutions to be formulated. Applications should include a full curriculum vitae, the names of three referees, details of publications, and should indicate when the applicant would be available to take up appointment (reference may be given to applicants who can start soon).

Applications, and requests for further information, should be addressed to the Director (Dr. J. D. Conroy), Institute of Papua New Guinea Studies, Papua New Guinea. Closing date: 14 October, 1977.

MONASH UNIVERSITY
Melbourne, Australia
FACULTY OF EDUCATION

FIXED-TERM LECTURER

Applicants should have demonstrated scholarship in the field of the Social Foundations of Education and have a particular interest in the education of girls. The appointment will be for three years. Salary: $A14,632-$A18,262 per annum. Superannuation, Travelling and removal allowance. Repatriation. Temporary housing assistance. Information and application procedure available from the Academic Registrar, Monash University, Wellington Road, Clayton, Victoria 3168, Australia, or the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF. Enquiries should quote reference no. 16212. Closing date: 7 November, 1977.

UNIVERSITY OF WOLLONGONG
Australia

SENIOR LECTURER/ LECTURER IN GEOGRAPHY
(Limited Term Appointment)

Applicants should possess a higher degree and have significant experience in research and teaching at tertiary level in some field of human geography. A demonstrated interest in the behavioural aspects of the discipline, some experience in first year teaching and/or the application of quantitative methods in geography would be advantageous.

In the first instance the successful applicant would be appointed for two years and would be expected to commence duties early in 1978.

Further information may be obtained from Professor R. G. A. Wilson, Chairman, Department of Geography, in the University. Conditions of appointment and application procedure from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.
Salary ranges: Senior Lecturer $A19,576-$A22,955; Lecturer $A14,632-$A18,262.
Closing date: 24 October, 1977.

UNIVERSITY OF BRADFORD

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Applications are invited for the Chair following Professor Adam Curle's announcement of retirement to be effective from 30 September, 1978. Further particulars from the Registrar, University of Bradford, Bradford, West Yorkshire, BD7 1DP. Closing date for receipt of applications—30 November, 1977.

UNIVERSITY OF BRADFORD

MONASH UNIVERSITY
Melbourne, Australia
FACULTY OF EDUCATION

FIXED-TERM LECTURER IN PSYCHOLOGY

To teach postgraduate students ranging from trainee teachers to those studying advanced psychology, and to supervise higher degree candidates. High academic qualifications in any aspect of psychology required; the fields of particular interest are: psychology of instruction, educational guidance, counselling, social skills, language, cognition. Professional experience, especially in education, an advantage. The appointment will be for three years, beginning early 1978. Salary: $A14,632-$A18,262 per annum. Superannuation, travelling and removal allowance. Repatriation. Temporary housing assistance. Information and application procedure available from the Academic Registrar, Monash University, Wellington Road, Clayton, Victoria 3168, Australia, or the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF. Enquiries about the Faculty to Professor R. Taft, in the University. Applicants should quote reference no. 16217. Closing date: 14 October, 1977.

BATH
THE UNIVERSITY
SCHOOL OF ENGINEERING

RESEARCH OFFICER

A Research Officer is required for a period of four years to undertake research concerned with the development of advanced centrifugal and turbine fan technology under the SERC/DTI Industry sponsorship scheme, at the request of Professor F. J. Wallace.

Candidates should have a good degree in mechanical engineering and some experience either in instrumentation of data acquisition and data processing, high speed rotating machinery, or internal flow analysis for rotating machinery. A good knowledge of numerical and library levels and the writing of basic/advanced computer programs. The appointment is for an initial period of two years at £3,750 in the range £3,333 to £4,150 (under review) according to qualifications and experience.

Application forms are obtainable from the Personnel Officer, University of Bath, Claverton Down, Bath, quoting reference number 77/78/7. Closing date for receipt of completed forms is 17th October, 1977.

BATH
THE UNIVERSITY
SCHOOL OF ENGINEERING

POST-DOCTORAL RESEARCH OFFICER

Applications are invited for the above post, tenable at least until September, 1978.

The successful applicant will be required to undertake research in the field of hydrodynamic forces on a ground vehicle under simulated aerodynamic conditions. The experimental facilities include moving belt, wind tunnels and road tests.

Applicants should hold, or be completing a Ph.D., preferably in fluid mechanical engineering or related subject. Salary in the range £5,333 to £6,150 (under review).

Application forms and further particulars may be obtained from the Personnel Officer, (University Ref. 77/78/8), University of Bath, Claverton Down, Bath, quoting reference number 77/78/8. Closing date for receipt of completed forms is Monday, 17th October, 1977.

BIRMINGHAM
THE UNIVERSITY
FACULTY OF EDUCATION
DEPARTMENT OF CURRICULUM STUDIES

POST OF RESEARCH ASSOCIATE

Applications are invited for the post of Research Associate in an Observational Study of Science Teaching in School Laboratories. The appointment is for 2 years from 1st January, 1978 to 31st December, 1979 and will be concerned primarily with the collection of data on teaching experience and practical skills, and the development of instruments to measure these variables. Previous research experience, though not essential, would be welcome.

Salary on Scale (Social Class 1) (under review) £3,333 to £4,150 plus superannuation.

Further particulars from Professor J. F. Eggleston, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications, including the names of two referees, should be sent as soon as possible.

EXETER
THE UNIVERSITY
DEPARTMENT OF CHEMISTRY

POST-DOCTORAL APPOINTMENT

Applications are invited for the appointment of a post-doctoral research assistant supported by the Science Research Council. Study of the mode of entry into three-chemical and mechanistic studies of amine oxide metabolism in D. Grout. The work will be carried out in collaboration with biochemical investigations with microsomal enzymes and whole plants. Applicants should have a good honours degree in chemistry and preferably a Ph.D. degree or its equivalent. The appointment will be for one year initially.

Applications, together with a curriculum vitae and the names of two referees, should be sent as soon as possible to Miss Dorcas Watson, Administrative Assistant, Department of Chemistry, University of Exeter, Stocker Road, Exeter EX4 4QD, quoting reference no. 2/179/77.

UNIVERSITY OF NATAL

DURBAN - SOUTH AFRICA

Applications are invited from suitably qualified persons for appointment to the following posts:—

DEPARTMENT OF BIOLOGICAL SCIENCES

PROFESSOR (ADV: D 37/77)
Candidates may be specialized in either Botany or Zoology, but the successful candidate must show a strong interest in the presentation of integrated biology and will be elegible for appointment to Head of Department.

DEPARTMENT OF FRENCH

PROFESSOR AND HEAD OF DEPARTMENT ADV: D 38/77)

DEPARTMENT OF HISTORY

PROFESSOR AND HEAD OF DEPARTMNT (ADV: D 39/77)

DEPARTMENT OF LAND SURVEYING

PROFESSOR OF CADASTRAL AND GEODETIC SURVEYING (ADV: D 40/77)
Applicants must have the qualifications necessary for registration as a Land Surveyor in the Republic of South Africa.

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PROFESSOR IN PURE AND APPLIED MATHEMATICS (ADV: D 41/77)

DEPARTMENT OF ACCOUNTANCY

SENIOR LECTURER/LECTURER ADV: D 42/77)
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LECTURER IN CLASSICS ADV: D 46/77)

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LECTURER (ADV: D 47/77)
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LANGUAGE AND COMMUNICATION UNIT

LECTURER (ADV: D 48/77)
Training and/or experience in one or more of the following areas would be considered a recommendation :—
(a) Applied Linguistics
(b) Teaching of English at an advanced level
(c) Writing or editing of technical or business reports or articles
(d) Speech communication

SPORTS UNION

SPORTS OFFICER (ADV: D 49/77)
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THE RELEVANT SALARY SCALES ARE AS FOLLOWS:

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LECTURER:	R6,300 × 360—9,180 plus 10%
SPORTS OFFICER:	R6,460 × 360—9,900 × 450—10,350 plus 10%

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition, an annual vacation savings bonus is payable subject to Treasury regulations.

The policy of the University is that all persons, regardless of sex, religion, race, colour or national origin, are eligible for appointment.

Application forms, further particulars of each post and information on pension, medical aid, staff bursary, housing loan and subsidy schemes, long leave conditions and travelling expenses on first appointment are obtainable from the Registrar, University of Natal, King George V Avenue, Durban, 4001, South Africa Applications on the prescribed form must be lodged not later than 31st October. 1977, quoting the applicable reference.

UNIVERSITY OF NATAL

PIETERMARITZBURG
SOUTH AFRICA

Applications are invited from suitably qualified persons for appointment to the following posts:

DEPARTMENT OF ACCOUNTANCY

PROFESSOR AND HEAD OF DEPARTMENT
(PMB 41/77)

In addition to the salary, a subvention is payable by the Public Accountants and Auditors Board, in its discretion, to chartered accountants who are engaged full-time as Senior Lecturers in the teaching of accountancy students at South African universities.

DEPARTMENT OF LAW

SENIOR LECTURER
(PMB 44/77)

This is a newly created post.

LECTURER
(PMB 42/77)

DEPARTMENT OF BIOCHEMISTRY

LECTURER
(PMB 45/77)

This is a newly created post.

DEPARTMENT OF COMPUTER SCIENCE

LECTURER IN COMPUTER SCIENCE
(PMB 43/77)

Applicants should have a degree (Honours at least) in computer science or a related field, and will be responsible for teaching undergraduate courses in Business Data Processing and Computer Science in Pietermaritzburg. The appointee will also assist in supervising the operation of the Pietermaritzburg section of the University Computer Centre.
Closing date for applications is 15th October, 1977.

DEPARTMENT OF SOIL SCIENCE AND AGROMETEOROLOGY

PROFESSOR AND HEAD OF DEPARTMENT
(PMB 46/77)

Candidates must be Soil Scientists in possession of a Ph.D degree or its equivalent. Candidates should also have considerable teaching and research experience and have proof of their ability to initiate and supervise research in their chosen field of study.

DEPARTMENT OF DIETICS AND HOME ECONOMICS

LECTURER IN HOME MANAGEMENT
(PMB 48/77)

Preference will be given to applicants with a higher degree in this area, and teaching experience. The successful candidate will be responsible for teaching and developing undergraduate courses in Home Management for the B.Sc. Home Economics degree as offered by the University.

DEPARTMENT OF HORTICULTURAL SCIENCE

LECTURER
(PMB 47/77)

The relevant Salary Scales are as follows:
Professor: R11,250 x 450—12,600 x 600—R13,800 plus 10 per cent pensionable allowance per annum.
Senior Lecturer: R8,820 x 360—9,900 x 450—R11,250 plus 10 per cent.
Lecturer: R6,300 x 360—R9,180 plus 10 per cent.

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition, an annual vacation savings bonus is payable, subject to Treasury regulations.

The policy of the University is that all persons, regardless of sex, religion, race, colour or national origin, are eligible for appointment.

Application forms, further particulars of each post and information on pension, medical aid, staff bursary, housing loan and subsidy schemes, long leave conditions and travelling expenses on first appointment are obtainable from the Registrar, University of Natal, P.O. Box 375, Pietermaritzburg, 3200, with whom applications, on the prescribed form, must be lodged not later than October 31, 1977, quoting the applicable reference.

Universities continued

UNIVERSITY OF SYDNEY
LECTURESHIP IN ELECTRICAL ENGINEERING

Applicants should be experienced in the theory and practice of Communication Engineering. Appointee will be expected to conduct undergraduate and post-graduate courses in Telecommunications field. Relevant higher degree and/or suitable research or industrial experience is required.

Position is permanent but may be filled for three years in the first instance with the possibility of permanency during that time, or in certain cases return trips. Salary Range: $A14,632-$A19,262 p.a.

Applications including curriculum vitae, list of publications and names of three referees by 31 October, 1977, to Registrar, University of Sydney, NSW 2006, Australia, from whom further information available. Information also available from Association of (Appts.), 36 Gordon Square, London WC1H 0PF.

CHELSEA COLLEGE
University of London
CENTRE FOR SCIENCE EDUCATION

Applications are invited for work on the Assessment of School Performance in Science which forms part of the programme of Assessment of Performance Unit of the DES. Assignment will be lasting one up at Chelsea and at the Centre for Science Education at the University of Lancaster. The work at Chelsea will involve development of a range of methods of observation and testing and their application with pupils at ages 10, 13 and 15, and it is to be undertaken by three staff, two of whom have been appointed. For this three post preference will be given to candidates whose initial qualifications were in biology or chemistry.

Initial salary will be in the range £5,334 to £5,010 per annum rising to possible maximum of £6,627 per annum, plus £300 London Allowance in all cases. A full-time appointment may be made for up to three years. A candidate with particular expertise may be considered for part-time secondment or a shorter appointment at a higher salary.

Application forms and further details from Professor D. J. Baird, Centre for Science Education, Chelsea College, Bridges Place, London SW6 4HR.

Closing date 24th October 1977.

EAST ANGLIA
UNIVERSITY OF NORWICH
SENIOR LECTURERS AND LECTURERS IN LAW

Applications are invited for posts in the newly established School of Law which begins operations in October 1978 and in which the University wishes to make strong appointments. Subjects include land law, trusts, banking and revenue law and the law of the European Communities. Applicants should be prepared to make a higher award in elementary law, and a professional qualification, which would normally be an advantage. Salary will be in the ranges £4,641-£7,611 (junior lecturers), £7,611-£9,627 (lecturers) and £9,627-£12,627 (senior lecturers) plus F.S.S.U./U.S.S. benefits.

Applications (one copy only) giving full particulars of age, qualifications and experience, together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich, NR4 7TJ, from whom further particulars may be obtained, not later than 31 October, 1977. In naming three referees you are particularly requested to give only the names of those who can most immediately be approached by the University. No forms of application are issued.

GLASGOW
THE UNIVERSITY
DEPARTMENT OF MANAGEMENT STUDIES

A TEMPORARY LECTURER (Two Years) IN PRODUCTION/OPERATIONS MANAGEMENT

Applications are invited for a temporary lectureship for two years from mid-January/mid-February. The successful candidate should have an interest in the quantitative aspects of Production Management, and/or Operations Management. Research experience and experience in teaching, commerce, and/or industry would be essential.

The Department runs three very successful postgraduate post-experience courses mainly for executives in local industry and commerce, and operates a number of courses for undergraduate engineers.

Staff are involved in research and a wide variety of topics, to which the lecturer will be encouraged to contribute.

Salary will be within the range £4,334 to £5,010 per annum, or for lecturers scale according to qualifications and experience. Superannuation scheme will apply. Further particulars may be obtained from Dr. C. G. Gallagher, Management Studies Department, Adam Smith Building, Glasgow University, Glasgow G12 8RT. Tel. 041-339 8855, ext. 7165.

In reply please quote Ref. No. 3597T.

LONDON
THE UNIVERSITY
LECTURESHIP/ASSISTANTSHIP IN THE HISTORY OF MEDIEVAL BUILDING

Applications are invited for the post of LECTURER/ASSISTANT LECTURER in the History of Medieval Building in the Faculty of Laws, tenable as from 1st September, 1978, in the Department of Law. Preference will be given to those who have a higher degree and industrial experience.

Annual salaries (superannuable) are £4,641 to £7,611 (Lecturer) or £3,627 to £4,641 (Assistant Lecturer) rising to £5,334 and £5,010 respectively by annual increments on 1st August. Initial salary will depend on qualifications and experience.

Starting salary will depend on qualifications and experience.

Closing date for applications is 30th November, 1977.

HULL
THE UNIVERSITY
AUDIO VISUAL CENTRE

TELEVISION CAMERAMAN/ CAMERA ASSISTANT (Male or Female)

The post, which is immediately available, combines interest in television programme with some use of film cameras and editing in a well-established AV unit serving professional students. Training and experience in film and especially theatre lighting in television would be useful if necessary.

Salary for fully qualified candidate on the Grade 6 scale, £3,627 to £5,200 per annum. Under review.

Applications by letter giving details of qualifications and experience and the names of two referees to the Personnel Officer, University of Hull HU6 7RX to 14th October, 1977. Further particulars are available.

LEICESTER
THE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY

Applications are invited for a post of Lecturer in the Department of Psychology with specialist responsibility for teaching Psychology to medical students. Salary according to qualifications and experience on the scale £4,641 to £7,611 per annum, plus £300 London Allowance in all cases. A full-time appointment may be made for up to three years. A candidate with particular expertise may be considered for part-time secondment or a shorter appointment at a higher salary.

Application forms and further details from Professor D. J. Baird, Centre for Science Education, Chelsea College, Bridges Place, London SW6 4HR.

Closing date 24th October 1977.

LONDON
THE UNIVERSITY
KING'S COLLEGE
FACULTY OF LAWS

Applications are invited for the post of Assistant Lecturer in the Faculty of Laws, tenable as from 1st September, 1978, until 30th September, 1981. The stipend is subject to F.S.S.U. benefits. Further particulars may be obtained from the Academic Secretary to whom applications should be sent by 31st October, 1977.

LONDON
THE UNIVERSITY
KING'S COLLEGE
DEPARTMENT OF PHYSICS

Applications are invited for the post of ADMINISTRATIVE SECRETARY of the School. The post will be appointed will be a member of the administrative staff of the University College and will be responsible to the College Secretary, through the Head of the School, for administering the policies of the school. Duties will include financial management, administration of research grants, liaison with the central administration of the college, secretaryship of committees and implementation of committee decisions. Graduates with appropriate experience in university administration preferred.

Salary on the 14 Grade, £3,627 to £9,627 plus £300 London Allowance, superannuable. F.S.S.U./U.S.S.

Further particulars from the Assistant Secretary (Personnel), University College London, Gower Street, London WC1E 6BT, to whom applications should be made, with curriculum vitae and the names of two referees, no later than 25th October, 1977.

PAPUA NEW GUINEA
UNIVERSITY OF TECHNOLOGY
HEAD OF DEPARTMENT OF BUSINESS STUDIES

PROFESSOR/ ASSOCIATE PROFESSOR

Applications are invited for the above-mentioned appointment.

The Department of Business Studies is one of the five Departments of the Faculty of Engineering, Applied Sciences, works in close co-operating with the Computing and Financial Management in administering three-year courses for the Accounting and Business Studies, two streams of the Bachelor of Technology degree and the five-year Bachelor of Commerce degree. The Department conducts courses in Economics, Sociology, Public Administration, Management, Industrial Relations, Trade Unionism, Marketing, Advertising and Quantitative Techniques.

The University is seeking an academic with industrial experience who will have responsibility for developing the potential capacity in the Business Studies in the department and be able to contribute to teaching courses as well as develop and supervise post graduate courses. Experience in the needs of business New Guinea.

The salary level will be either that of an Associate Professor (Salary range $27,555 - $31,551 per annum) or Professor ($31,551 - $36,000 per annum) at U.S. Dollars.

Allowances additional to salary are payable as follows: married ($5,000 per annum), single ($3,000 per annum), housing ($4,000 per annum), cost of living ($1,000 per annum), plus one return passage per annum. Assistance and subsidies for children to and from place of study, other than normal school, is provided. Superannuation scheme, financial assistance in the form of loans for purchase of motor vehicles, personal effects, etc. Assistance with passages to Canberra, Australia and Port Moresby, New Guinea, annual leave, superannuation scheme, housing and investment incentives, study leave of six months in 18 years of service.

Applications will be considered only for a maximum of six years' service, after which the University reserves the right to make no assignment to or within Papua New Guinea.

Applications in duplicate should include full particulars of age, qualifications, marital status, family, previous employment and addresses and the names of two referees. Applications will be forwarded to all applicants. Applications received after 31st October 1977 and which are not complete will not be considered. Communications should be addressed to the Registrar, University of Technology, Papua New Guinea, Private Mail Bag, Lae, Morobe Province, Papua New Guinea. Telex No. 73, LAE. Applications should be sent to the Registrar, University of Technology, Papua New Guinea, Private Mail Bag, Lae, Morobe Province, Papua New Guinea. Telex No. 73, LAE.

NEWCASTLE UPON TYNE
THE UNIVERSITY
DEPARTMENT OF ENGINEERING MATHEMATICS

LECTURER IN ENGINEERING MATHEMATICS

Applications are invited for the post of Lecturer in Engineering Mathematics (Statistics) which is strongly associated with the engineering services-flow of statistics in the department. The successful candidate will be expected to develop areas of interest and previous involvement in the engineering context of such problems and in the teaching of statistical methods and statistical training. In addition to these duties, the person appointed will be expected to participate in and to teach the fundamentals of the Department.

Salary will be at an appropriate point on the Lecturer scale, according to age, experience, within the range £3,627 to £9,627 per annum, according to age, experience, within the range £3,627 to £9,627 per annum. Membership of the superannuable superannuation scheme will be required.

Further particulars may be obtained from the Registrar, The University, Newcastle upon Tyne NE1 7RU, with whom applications (three copies) should be lodged not later than 14th October, 1977. Please quote reference 11/88.

ST. ANDREWS
THE UNIVERSITY

Applications are invited for the post of LECTURER IN PHILOSOPHY (THEORY OF KNOWLEDGE) which will fall vacant on 1st October 1978.

Initial salary £5,373; F.S.S.U. benefits.

Applications (preferably in triplicate), with the names of three referees, should be lodged by 1st January 1978 with the Establishments Officer, The University, College Gate, St. Andrews, Fife, Scotland, from whom further particulars may be obtained.

SHEFFIELD
THE UNIVERSITY
DIVISION OF CONTINUING EDUCATION

Applications are invited from men and women for a post of Research Associate in the above Division, tenable for two years from a date as soon as practicable to be arranged. The person appointed will be expected to work in a multi-disciplinary team on a D.E.S.-sponsored research project in Nonformal mature students in further and higher adult education.

Candidates will be expected to possess a higher degree and to have demonstrated research ability in the field of social science. Previous experience in adult education would be an advantage.

Salary on the scale £3,627 to £5,334 per annum (under review) plus F.S.S.U. benefits.

Further particulars from the Registrar and Secretary, The University, Sheffield S10 2TN, to whom applications should be made, with curriculum vitae and the names of two persons to whom reference may be made, not later than 25th October, 1977.

ULSTER
THE NEW UNIVERSITY
SCHOOL OF PHYSICAL SCIENCES
(MATHEMATICS)

Applications are invited from graduates in Mathematics for a lectureship tenable for a temporary period of two years from 1st October, 1978. The successful candidate will be required to contribute to the teaching of Mathematics to students in the School of Physical Sciences, Applied Mathematics, Computing and Financial Mathematics in administrative courses for the Accounting and Business Studies, two streams of the Bachelor of Technology degree and the five-year Bachelor of Commerce degree. The Department conducts courses in Economics, Sociology, Public Administration, Management, Industrial Relations, Trade Unionism, Marketing, Advertising and Quantitative Techniques.

Salary will be within the range £3,627 to £9,627 per annum, according to age, experience and qualifications.

Further particulars may be obtained from the Registrar, The University, Newtownabbey, Co. Londonderry, Northern Ireland (quoting reference 777 111), to whom applications (three copies) should be sent not later than 14th October, 1977.

ULSTER
THE NEW UNIVERSITY
SCHOOL OF HUMANITIES
TEMPORARY LECTURER IN HISTORY

Applications are invited for a temporary full-time lectureship in History tenable for the above period for 4 years from 1st October, 1978, to 30th September, 1978, to 30th September, 1982. Salary will be on the scale £3,627 to £9,627 per annum.

Further particulars may be obtained from the Registrar, The University, Newtownabbey, Co. Londonderry, Northern Ireland (quoting reference 777 111), to whom applications (three copies) should be sent not later than 14th October, 1977.

THE OPEN UNIVERSITY
FACULTY OF SOCIAL SCIENCES
SECONDMENT—SOCIOLOGY

Applications are invited from lecturers and senior lecturers in Sociology. This will be a person with an existing post to which to return. He or she will commence duty on or before September 1st, 1978, but part-time secondment during the production of the course is expected before that date. Subsequent commitments. An interest in, and experience of, the teaching of introductory sociology courses is essential. Costs will be reimbursed to the seconding institution.

Application forms and further particulars are available, from the Personnel Manager (TS), The Open University, Walton Hall, Milton Keynes, MK7 6AA (quoting reference 2/5/66). Closing date: 13th October, 1977.

UNITED STATES
UNIVERSITY OF PENNSYLVANIA
THOURON AWARDS

Under the Foundation of Sir John and Lady Thouron, applications are invited before 30th November, 1977, for up to five duties under 35 years and for a period of 12 months, beginning 1st of the advice of appointments committee, to study in the United Kingdom from 1st September, 1978. At the option of the holder, he may be accepted during the tenure of the award at the University of Pennsylvania, Philadelphia, Pennsylvania.

Prospective applicants should send a standard and addressed to Professor Malcolm Bilson, Secretary to the Awards Committee, University of Pennsylvania, Philadelphia, Pennsylvania 19174.

Closing date for nominations 1st October, 1977.

Polytechnics

Lecturer II/Senior Lecturer in Law
£4,041-£7,206 p.a. inc.

The successful applicant will teach on the BA Hons and other courses and will be encouraged to undertake research. Preference will be given to candidates who can offer those subjects: Welfare Law; Property Law; Law of Contract. Candidates should be good honours graduates and preferably possess a higher degree or professional qualification.

Associate Lecturer in History
(Pro Rata on L2 scale)
£4,041-£6,282 p.a. inc.

Required to teach up to 7 hours a week in three main areas but also available: 19th and 20th century British History; 19th and 20th century European History. The appointment is for one year only.

Associate Lecturer in French
(Pro Rata on L2 scale)
£4,041-£6,282 p.a. inc.

Required to teach up to 10 hours a week, principally teaching of French on the BA Honours in European Administration courses. It is essential that the person be a native speaker of French with experience of teaching French and written French mainly in the fields of economics, accountancy and marketing.

Please write for full details and an application form, stating clearly which post you are applying for, and post them to: Appointment Officer (Ref. AJ56), Middlesex Polytechnic, Queensway, Enfield, Middx EN3 4SF, to whom completed forms should be returned by October 10.

Middlesex Polytechnic

oxford polytechnic

Department of Management & Social Sciences

Lecturer—Senior Lecturer in AAccountancy

Lecturer—Senior Lecturer in Marketing/Data Processing

(temporary for one year)

with opportunity to specialise in one, or other subject. (Salary £4,744—(bar)—£6,909)

Applications, including a curriculum vitae and the names and addresses of three referees, should be sent by 7th January, 1978 to Dr. Andrew Kakabadse, Department of Management and Social Sciences, Oxford Polytechnic, Oxford OX3 0BP, from whom further details and application forms may be obtained.

POLYTECHNIC OF THE SOUTH BANK
Head of Department of ESTATE MANAGEMENT

Applications are invited for this vacancy, which arises from a promotion. The post is graded as Head of Department Grade VI. Salary within the range £9,660-£10,626 inclusive of Inner London allowance.

Further particulars and application forms from the Staffing Officer (Room 1033), Polytechnic of the South Bank, Borough Road, London SE1 0AA. Tel. 01-928 8989.

PRINCIPAL LECTURER IN BUILDING TECHNOLOGY

£5,940-£6,642 (Bar)-£7,578 plus supplements of £492 p.a.

Candidates should hold either a degree or diploma in Building and corporate membership of an appropriate professional institution. Possession of a higher degree obtained by research is also desirable.

Further particulars and form of application obtainable from The Chief Administrative Officer, Trent Polytechnic, Burton Street, Nottingham, NG1 4BU. A self-addressed foolscap envelope will assist with the speedy despatch of documents. Closing date 10th October, 1977.

TRENT POLYTECHNIC NOTTINGHAM

NEWCASTLE UPON TYNE POLYTECHNIC
Division of Education Studies

PRINCIPAL LECTURER IN EDUCATION OF THE MENTALLY HANDICAPPED

Required from 1st January, 1978, to lead a team of specialist tutors teaching on the pre-service and in-service courses in Education of the Mentally Handicapped and to make a special contribution to the new CNAA BEd Degree Course and Diploma/Certificate in Education as well as to Planning the re-structured pre-service courses for 1980 which is still at an early stage. Applicants should be trained graduate teachers with relevant experience.

Burnham FE Principal Lecturer. £5,940-£6,642 (Bar)-£7,578 plus £492 per annum salary supplements.

Further particulars and application forms, returnable by Wednesday, 12th October, 1977, please send stamped addressed envelope to the Staffing Officer, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne NE1 8ST.

Polytechnics continued

LANCHESTER POLYTECHNIC
Coventry Rugby
FACULTY OF SOCIAL SCIENCE

Applications are invited for the post of

HEAD OF DEPARTMENT
Department of Legal Studies

To succeed the late Doctor W. Frank Salary Head of Department Grade V £7,395 to £8,271 p.a. plus £312 plus £180 supplements (up to maximum of £8,680 p.a.).

Application form and further particulars are available from the Director, Lanchester Polytechnic, Priory Street, Coventry CV1 5FB, returnable by 19th October, 1977.

Leeds Polytechnic
School of Electrical Engineering

LECTURER II IN ELECTRICAL ENGINEERING

to teach mainly Electrotechnology at degree and sub-degree levels and having broad abilities leaning towards industrial electronic applications.

Salary Scale: £3,744-£5,085 (inclusive supplements).

Details from:
The Services Officer (EE.13)
Leeds Polytechnic,
Calverley Street,
Leeds LS1 3HE 0532 61101

Please enclose s.a.e.

Closing date: 12 October 1977

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF FINE ART
TECHNICIAN T1 (12-month)

Well-paint area of the Fine Art and Graphic Design Department. Qualified and experienced in the preparation of materials and equipment necessary to the practical work of the department. Ability to work on own initiative required. Knowledge of materials and techniques in the design field to be exercised to assist students in their practical work. Polytechnic regulations will be responsible for the safe keeping of tools and hand tools in the department. Suitable candidates will be required to work in the new building and/or other buildings as may be required from time to time.

Salary scale £3,627 to £4,641 plus £312 per annum.

Five year reference LP

DEPARTMENT OF BUSINESS STUDIES

SENIOR LECTURER IN BUSINESS STUDIES (MARKETING) SUPERVISION

The post Lecturer will be responsible for teaching and research in a discipline area and for the supervision of undergraduate and post-graduate courses in Marketing and R.S.C. in industrial and distribution and systems engineering.

LECTURER II/SENIOR LECTURER

to join the electrical engineering and computer technology group which is internationally recognised for its research and development. Honours degree in electrical engineering or computer technology with postgraduate experience in digital electronics, computing and/or microprocessor applications.

Salary scale: £3,627 to £4,641 plus £312 per annum, by £234 to £5,373 plus £312 per annum.

LECTURER II/SENIOR LECTURER

to join the electrical engineering and computer technology group which is internationally recognised for its research and development. Honours degree in electrical engineering or computer technology with postgraduate experience in digital electronics, computing and/or microprocessor applications.

Salary scale: £3,627 to £4,641 plus £312 per annum, by £234 to £5,373 plus £312 per annum.

Application forms and further particulars are available from the Personnel Officer, Liverpool Polytechnic, Byrom Street, Liverpool L3 3AF. Tel. 051-207 3581, ext. 24. Quote reference LP 76/77.

Closing date is 14 days from the appearance of this advertisement.

SHEFFIELD
CITY POLYTECHNIC
DEPARTMENT OF CHEMISTRY
RESEARCH ASSISTANT IN CHEMISTRY

Applications are invited for the post as Research Assistant in the Department of Chemistry to work on the synthesis and properties and reactions of some novel heterocyclic compounds, with a view to their possible commercial use as dyes or synthetic pyrethroids.

Applicants should have a good honours degree in chemistry. The post is tenable for three years and the salary (£3,627 in the first instance, £4,641 on the third birthday).

Enquiries for an application form in writing please, to the Personnel Officer, Sheffield City Polytechnic, Pond Street, Sheffield, S1 1WB. Telephone 0742 20911, extension 2465. Closing date for receipt of completed application forms is 14th October, 1977.

LEEDS
THE POLYTECHNIC
SCHOOL OF CREATIVE ARTS AND DESIGN

PART-TIME LECTURER IN HISTORY OF ART

Required 3 hours weekly as from October, towards the B.Ed. degree in Art and Design. Applications, with full details of qualifications and experience, to be sent to the Head of School, Leeds Polytechnic, Calverley Street, Leeds LS1 3HE (0532 61101) to whom letters of application may be made for an application form. Closing date for receipt of completed forms 14th October, 1977.

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF FINE ART
TECHNICIAN T1 (12-month)

Well-paint area of the Fine Art and Graphic Design Department. Qualified and experienced in the preparation of materials and equipment necessary to the practical work of the department. Ability to work on own initiative required. Knowledge of materials and techniques in the design field to be exercised to assist students in their practical work. Polytechnic regulations will be responsible for the safe keeping of tools and hand tools in the department. Suitable candidates will be required to work in the new building and/or other buildings as may be required from time to time.

Salary scale £3,627 to £4,641 plus £312 per annum.

Five year reference LP

DEPARTMENT OF BUSINESS STUDIES

SENIOR LECTURER IN BUSINESS STUDIES (MARKETING) SUPERVISION

The post Lecturer will be responsible for teaching and research in a discipline area and for the supervision of undergraduate and post-graduate courses in Marketing and R.S.C. in industrial and distribution and systems engineering.

LECTURER II/SENIOR LECTURER

to join the electrical engineering and computer technology group which is internationally recognised for its research and development. Honours degree in electrical engineering or computer technology with postgraduate experience in digital electronics, computing and/or microprocessor applications.

Salary scale: £3,627 to £4,641 plus £312 per annum, by £234 to £5,373 plus £312 per annum.

Application forms and further particulars are available from the Personnel Officer, Liverpool Polytechnic, Byrom Street, Liverpool L3 3AF. Tel. 051-207 3581, ext. 24. Quote reference LP 76/77.

Closing date is 14 days from the appearance of this advertisement.

SHEFFIELD
CITY POLYTECHNIC
DEPARTMENT OF COMMUNICATION STUDIES
SENIOR LECTURER/ LECTURER II IN COMMUNICATION STUDIES (PSYCHOLOGY)

Salary Scale: Senior Lecturer £6,324 to £6,717 (plus £312 London Allowance) Lecturer II £3,627 to £5,373 (plus £312 London Allowance).

Applications are invited for the above post.

Requests for an application form in writing please, to the Personnel Department, Sheffield City Polytechnic, Pond Street, Sheffield, S1 1WB. Telephone 0742 20911, extension 2465. Closing date for receipt of completed application forms is 14th October, 1977. Please quote ref. CHEM.

TEESSIDE
THE POLYTECHNIC
DEPARTMENT OF ELECTRICAL, MECHANICAL AND PRODUCTION ENGINEERING AND CONTROL ENGINEERING

Applications are invited for the following posts:

PRINCIPAL LECTURER (CONTROL ENGINEERING)

to lead the Control and Instrumentation group and to be responsible for the development of undergraduate and post-graduate courses, research and consultancy projects for control systems.

Applicants should have a good honours degree, preferably in engineering or science, experience in industry and a proven ability to lead a team. Experience in computer control would be an advantage.

LECTURER II/SENIOR LECTURER

to join the control engineering and production group which is internationally recognised for its research and development. Honours degree in engineering or science, preferably with postgraduate experience in control engineering and/or production engineering and/or computer control and/or microprocessor applications.

Salary scale: £3,627 to £4,641 plus £312 per annum, by £234 to £5,373 plus £312 per annum.

Application forms and further particulars are available from the Personnel Officer, Teesside Polytechnic, Borough Road, Middlesbrough, Cleveland TS1 3BA. Telephone Middlesbrough 247121, extension 2360. Closing date for receipt of completed application forms is 14th October, 1977.

MANCHESTER
THE POLYTECHNIC
FACULTY OF ART AND DESIGN
DEPARTMENT OF TEXTILES/ FASHION

LECTURER II IN EMBROIDERY

To be responsible for fashion in theoretical studies of embroidery and the fashion and demonstration of the whole range of hand embroidery techniques. The person appointed will have had experience of teaching at B.A.(Hons.) level and should, ideally, have a broad interest in the area of textiles/fashion and assist in the development of embroidery for fashion or interior uses.

Salary scale: £3,627 to £5,373 plus £312 per annum supplement.

For further particulars and application form (returnable by October 31, 1977), please send a self-addressed envelope marked "Application" to the Secretary, Manchester Polytechnic, All Saints Building, Manchester M15 6BH.

Librarians

DORSET
DORSET INSTITUTE OF HIGHER EDUCATION
Bournemouth and Weymouth
ASSISTANT LIBRARIAN

required for the recently established Learning Resources Centre of the Institute at Bournemouth.

The main duties of the post include responsibility for the cataloguing section of the printed material at Bournemouth, together with assistance with reader service and on duties.

Candidates should be Chartered Librarians and have appropriate experience.

Salary: AUS £5,306 to £5,778 (inclusive of supplements).

Application forms (returnable by October 31) and further details from Chief Administrative Officer, Dorset Institute of Higher Education, Wallisdown Road, Wallisdown, Poole BH12 5HH.

CITY OF LONDON
THE POLYTECHNIC
LIBRARY AND LEARNING RESOURCES SERVICE

LIBRARIAN III (part-time).

Applications are invited for the post of SITE LIBRARIAN at the Walbrook House Library. Candidates should be chartered librarians and an interest in technical literature would be an advantage. The salary is £3,627 to £4,641 plus £312 per annum including London weighting and a part time responsibility. The post is expected to be full-time rather it is expected that the normal working week will be 35 hours.

Application forms and further details are available from the Assistant Secretary, City of London Polytechnic, 117 Whitechapel, London E1 7LA (01-247 6555) and should be returned by October 24, 1977.

LIBRARY ASSISTANT

Required by professional organisation. Candidates should have had some experience in a special or technical library.

Salary £2,640 to £3,600 per annum. Subsidised staff canteen and other perks.

Applications to the Secretary, Institute of Structural Engineers, 11 Upper Belgrave Street, SW1X 8BH.

Announcements

LONDON, W.C.2

The BBC Russian Service would like to hear from graduates in History, Politics, Economics, interested in researching and writing features and programmes on Anglo-Soviet relations since 1914.

Please write, with details of relevant experience, to: Mary Gordon-Brown, BBC Russian Service, Bush House, London, W.C.2.

STUDENTS EARN EXTRA MONEY

The BRITISH STUDENT ADVERTISING SERVICE requires ambitious students, Polytechnics, Colleges, etc., to act as their representatives during the coming term. Excellent commission paid. Apply now for details of work.

Apply: 313 Earls Court Road, London SW5. 01-370 7025.

COMMUNITY-CUM-STUDY CENTRE

Group with large country mansion near Aylesbury requires people to help set up self-contained living units and for maintenance and gardening duties. Social activities. Social activities. Alternative Education, Self-Development Learning, Art and Healing Therapies. Members are mainly professional social workers.

Tel. 01-435 3256 (Mon-Fri) Housing Co-operative, 70 Cumberland Mansions, Nutford Place, London W1.

Fellowships and Studentships

LADY DAVIS FELLOWSHIP TRUST
P.O. Box 1255, Jerusalem, Israel

FELLOWSHIPS FOR STUDY AND/OR RESEARCH AT GRADUATE OR POST-DOCTORAL LEVELS AND VISITING PROFESSORSHIPS IN 1978-79
at the Hebrew University of Jerusalem and
at the Technion-Israel Institute of Technology, Haifa

GRADUATE AND POST-DOCTORAL FELLOWSHIPS

Eligibility: Lady Davis Fellows will be selected on the basis of demonstrated excellence in long studies, evidence of distinction in their chosen fields of specialization and qualities of mind, intellect and character.

Post-doctoral candidates shall have completed their doctoral dissertation before arrival in Israel.

All Fellowships are subject to the candidate being accepted by the respective institution.

The Graduate and Post-doctoral Fellowships are tenable for a period of one year. They may be renewed for a second year and in special circumstances extended to a third year.

The grant is intended to defray the cost of the Fellow's travel and tuition fees and to meet reasonable living expenses.

Application: Graduate candidates may apply during their senior academic year or after they have undertaken study in a graduate school. Post-doctoral candidates may apply at an early stage of their professional career (not later than three years after completion of his/her doctoral dissertation).

Graduate and Post-doctoral candidates, including Israelis abroad, may obtain application forms from the Lady Davis Fellowship Trust at the above address.

Completed applications must reach the Office of the Trust not later than January 1, 1978.

VISITING PROFESSORSHIPS

These Fellowships are intended for candidates with the rank of Full or Associate Professor at their own institution. They are tenable for periods from one trimester (or semester) to a year.

Application: Forms may be obtained from the Lady Davis Fellowship Trust at the same address. Completed applications must reach the Office of the Trust not later than November 30, 1977.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem offers a small number of

POST-DOCTORAL FELLOWSHIPS

for the 1978-79 academic year, in the Humanities, Social Sciences, Natural Sciences, Agriculture and Medicine.

Candidates may apply at an early stage of their professional career (not later than 3 years after completion of their doctoral dissertation) to P.O. Box 1253, Jerusalem, Israel.

LOTHIAN REGIONAL COUNCIL
NAPIER COLLEGE OF COMMERCE AND TECHNOLOGY
RESEARCH FELLOWSHIP

Salary up to £4,170

Available for a study of Pollution and the Paper Industry. Candidates should have a good honours degree in Chemistry and should be able to work with minimum supervision.

The post is for one year only and is supported by (Century).

MISSION (Science in a Social

Application forms from the Academic Registrar, Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 5DT.

Personal

POSTAL LOANS UNSECURED
£50-£1,500
RICHMOND INVESTMENTS LTD.
4 The Green Richmond, Surrey Tel 1 940 0329

Colleges and Departments of Art

ROYAL COLLEGE OF ART
Appointment of
RECTOR AND VICE-PROVOST

Viscount Esher will be retiring as Rector and Vice-Provost of the Royal College of Art at the end of August 1978.

The Council of the College is now proceeding to the appointment of a successor, and will be very glad to receive applications, nominations or suggestions for consideration. They should be sent in confidence to the College Registrar. Formal applications should reach the College not later than Monday 31st October 1977.

Further details and application forms are obtainable from the Registrar at the Royal College of Art, Kensington Gore, London SW7 2EU.

WINCHESTER SCHOOL OF ART
DEPARTMENT OF FINE ART

Half-time LII/Senior Lecturer in Video and Film (Ref.: FA/1)
To teach B.A. Fine Art students in a new and expanding area of study. Good organising ability and technical competence in addition to creative talent essential.

Half-time LII/Senior Lecturer in Painting (Ref. FA/2)
To teach B.A. students in Painting. Applicants should be established artists with a definite interest in teaching at this level.

Half-time LII/Senior Lecturer in Photography (Ref. FA/3)
To teach B.A. students in Fine Art. Applicants should be creative photographers with good technical knowledge, and should be prepared to develop a small but expanding photography unit within the department.

All posts are equivalent to 2½ days per week. For further particulars please write enclosing stamped addressed envelope quoting ref. reference to The Registrar, Winchester School of Art, Park Avenue, Winchester, Hampshire (Tel 61021). Closing date Thursday, 6th October, 1977.

EXETER
COLLEGE OF ART AND DESIGN

LECTURER II IN HISTORY OF 20TH CENTURY DESIGN

CNAA BA (Hons) Graphic Design. Duties: Applicants appointed will be responsible for teaching with special reference to Graphic Design, and will also be required to teach on other courses in the History of Art and Design, and to organise seminars and tutorials relating to this subject.

Previous teaching experience to degree level, and/or in a College of Art would be an advantage.

S.A.E. for details and application form to Chief Administrative Officer, Exeter College of Art and Design, Dix's Field, Exeter, Devon EX4 3AS.

LONDON
SCHOOL OF ORIENTAL AND AFRICAN STUDIES
(University of London)
EXTRAMURAL DIVISION
EDUCATION PROGRAMME—AUTUMN TERM

The following short courses will be held at the School. They are designed for teachers and for college lecturers but are also suitable for other interested individuals. College of Education will be able to support reduced rates.

(1) Hinduism—September 7 (2) Travellers to the Orient, November 2 (3) Islam, after Mao, December 7

Details and application forms (quoting appropriate course) from: Organiser, Extramural Studies, School of Oriental and African Studies, 27/29 Russell Square, London WC1B 5DP. Telephone: 01-637 2388, ext. 330.

Adult Education

GWYNEDD
COLEG HARLECH
RESIDENTIAL COLLEGE FOR ADULT EDUCATION

SENIOR DOMESTIC BURSAR

Applications are invited for the above post from men and women with R.S.A. Examination diplomas and/or equivalent qualifications and/or experience.

The College has approximately 130 students, staff of whom are resident. The Senior Domestic Bursar is responsible for the domestic management of the College, including the catering arrangements and is assisted by a Domestic Bursar (Catering) and a Domestic Supervisor.

Salary scale (varying with dependants and qualifications and experience) Resident: £3,264 to £4,215 plus free board and accommodation. Non-resident: £3,264 to £4,215 per annum, while on duty. Plus supplementary allowance and up to 7½ per cent of salary under Phase 3.

Local Government Superannuation Scheme. Conditions annual leave.

Further particulars and application form from the Registrar, Coleg Harlech, Harlech, Gwynedd LL46 2YU (Closing date, 24th October, 1977.

LONDON

Applications are invited from suitably qualified postgraduates for a limited number of places on the full-time one year course leading to the Diploma in Adult Education of the University of London Institute. Reading knowledge of French and German required, besides English normally required.

Applicants should note that this course is not a vocational professional training.

Further details and application forms may be obtained from the Registrar of the London School, University College London, WC1E 6BT, to which applications must be received by March 1, 1978.

LONDON

Applications are invited from suitably qualified postgraduates for a limited number of places on the full-time one year course leading to the Diploma in Adult Education of the University of London Institute. Reading knowledge of French and German required, besides English normally required.

Applicants should note that this course is not a vocational professional training.

Further details and application forms may be obtained from the Registrar of the London School, University College London, WC1E 6BT, to which applications must be received by March 1, 1978.

Colleges and Institutes of Technology

ABERDEEN ROBERT GORDON'S INSTITUTE OF TECHNOLOGY

SCHOOL OF BUSINESS MANAGEMENT STUDIES

LECTURER
in Law with UK University or CNAA Law degree

Candidates should have professional, industrial or commercial experience in the application of Mercantile Law, preferably Company Law. Lecturing and/or research experience an advantage.
The successful candidate will participate in the operation and development of degree and postgraduate/post experience courses.
Salary scale in range £3,688-£6,999 per annum (including Phase I and Phase II Supplements).
Assistance with removal expenses.
Details from hClef Administrative Officer, Robert Gordons Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1FR (0224 574511).

METROPOLITAN BOROUGH OF STOCKPORT
STOCKPORT COLLEGE OF TECHNOLOGY

HEAD OF DEPARTMENT - GRADE VI
and
PRINCIPAL LECTURER
in the
DEPARTMENT OF MANAGEMENT AND BUSINESS STUDIES

Applications are invited from men and women for these two senior posts available from 1st January, 1978. Substantial experience in business and of teaching in further education are essential for both posts.

The Principal Lecturer will undertake a significant role in the administration of the department, should be able to assist with external liaison and to teach some aspects of business studies or management studies. Ability to offer Management Services would be advantageous.

Salary Scales: (inc. £312 p.a. and April, 1977 supplement).. Head of Department (Grade VI)—£8,529-£9,063 p.a.
Principal Lecturer—£6,432-£7,134 p.a.

Application forms and further particulars from the Principal ,Room 6/122, Stockport College of Technology, Wellington Road South, Stockport, SK1 3UO, on receipt of a stamped self-addressed envelope, quoting reference 516 (HOD) or 511 (PL). Applications to be achieved by 14th October, 1977.

West Glamorgan County Council

Applications are invited from suitably qualified persons for the following post in the Authority's Further Education Service.

NEATH TECHNICAL COLLEGES
HEAD OF DEPARTMENT OF SCIENCE (GRADE 3)

The work of the Science Department includes a strong bias in the chemical, petroleum and medical fields.
SALARY : £6,231 to £7,023 plus Supplement.s
Application forms are available from the undersigned on receipt of a stamped addressed foolscap envelope, quoting post reference 5FNTC/25.17.77.
CLOSING DATE. The closing date for the receipt of completed application forms is Friday, 14th October, 1977.
John Beale, Director of Education, Education Department, Princess House, Princess Way, Swansea.

DUNDEE COLLEGE OF TECHNOLOGY
Department of Civil Engineering

LECTURESHIP IN CIVIL ENGINEERING

Applicants should be civil engineering graduates having appropriate teaching and research/practical experience together with a particular interest in Hydraulics, Hydrology or Public Health; the ability to teach Surveying would be an added advantage. The person appointed must be able to teach up to degree level.
Salary scale (at present under review): £3,528-£6,324 (bar)-£6,807, with initial placing dependent upon approved prior experience. Financial assistance towards the cost of removal expenses may be payable.
Further particulars and application form obtainable from College of Technology, Bell Street, Dundee, DD1 1HG, to whom completed forms should be returned as soon as possible.

DUNDEE COLLEGE OF TECHNOLOGY

LECTURESHIP IN STATISTICS/ OPERATIONAL RESEARCH

Applicants should have a good honours degree in Statistics or in Mathematics and Statistics and should have an academic qualification and recent industrial experience in Operational Research.
Salary at present under review) on the scale £3,529-£6,324 (bar)-£6,807, with initial placing dependent upon previous experience.
Further particulars and application form obtainable from the Administrative Assistant (Establishment), Dundee College of Technology, Bell Street, Dundee, DD1 1HG, to whom completed application forms should be returned not later than 14 October, 1977.

LOTHIAN REGIONAL COUNCIL
NAPIER COLLEGE OF COMMERCE AND TECHNOLOGY

LECTURER IN PSYCHOLOGY

Salary on scale £4,605 to £6,633 (bar) to £7,656.
An interest in biological aspects of psychology would be an advantage.
Applicants should possess an honours degree and preferably have had industrial, research or teaching experience.
Further particulars and application forms from : The Academic Registrar, Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 5DT.

Appointments Wanted

LONDON, N.W.3

PUPILS in ENGLISH LITERATURE, five years' teaching experience, seeks part or full-time position in London or within commuting distance. University, college, or polytechnic level. Specialty 19th Century British Literature; surveys, genre courses British and American Literature, any period.
Claudia Franks, 15a Fitzjohn's Avenue, London, N.W.3

General Vacancies

HM Inspector of Schools
Higher and Further Education

Applications are invited from men and women, preferably aged between 35 and 45, for appointment as HM Inspectors to work mainly in the field of higher and further education, excluding universities. All HMIs undertake general duties as well as specialist work. Candidates should therefore have an interest in higher and further education generally and not only in the specialist areas listed below.
AGRICULTURE
The agricultural specialist will be concerned with maintained and direct grant institutions which provide courses of further and higher education in agricultural subjects including commercial and amenity horticulture, forestry and the rural environment. Applicants should have relevant qualifications and experience
BUSINESS STUDIES
Applicants should have good academic qualifications in economics and substantial experience of teaching economics at an advanced level in further or higher education. A period of employment outside the teaching professions would be an advantage
GENERAL EDUCATION
Applicants should have varied experience in the general and vocational education of young people over 16. Their academic qualifications may be in the humanities, the social or the physical sciences, or in technology. Experience of curriculum development and of general/liberal studies would be an advantage.
HOME ECONOMICS AND ALLIED SUBJECTS
Applicants should have a degree or diploma in home economics or a related area together with experience of teaching in further or higher education. Relevant industrial experience would be an advantage as the work will involve all aspects of home economics at craft, technician and professional level.
SOCIAL SCIENCES
Applicants should have a degree in sociology or the social sciences, or qualifications and experience in social work, and have relevant teaching experience in further or higher education. An interest in the social education of young people would be an advantage.
Starting salary will be within the range £6,825 to £9,415 (higher in exceptional cases) plus pay supplements as applicable. Higher posts are normally filled by promotion. Application forms (to be returned by 14 October) and further information may be obtained from Miss B. C. Haines, 39 York Road, London SE1 7NH, telephone number 01-928 9222 extension 2227. Please quote 5/775.
DEPARTMENT OF EDUCATION AND SCIENCE.

New Oxford Shakespeare

Oxford University Press seek an Assistant Editor for the New Oxford Shakespeare. The successful applicant will have specialized in Shakespearian studies to second degree standard, and will have, preferably, some experience of scholarly editorial work.

The preferred age is 25–35. The position, which is permanent and pensionable, will commence on 1 January 1978. The salary is on the scale £3367–£5031.

Please apply, with full curriculum vitae, to Mr L. R. Swaney, Personnel Department, Oxford University Press, Walton Street, Oxford, OX2 6DP, by 21 October.

COUNCIL FOR NATIONAL ACADEMIC AWARDS

EXECUTIVE OFFICERS

The Council has vacancies for two Executive Officers, one in the Membership Section and one in Registrations.
Experience of similar functions in an educational or professional environment would be an advantage.
Offices conveniently situated near King's Cross and St. Pancras stations: benefits include season ticket loans: luncheon vouchers: 24 days' annual leave.
The salary on appointment will be within the scale £3,852-£4,230.
Job descriptions are available from :
K. R. Booth, Assistant Secretary, Council for National Academic Awards, 344/354 Gray's Inn Road, London WC1X 8BP.
to whom applications giving details of qualifications and experience and mentioning the names of two referees should be submitted by 14 October, 1977.

TECHNICIAN EDUCATION COUNCIL

ADVISORY OFFICERS

Applications are invited for two additional posts established in January 1978 due to expansion of the Council's activities. The responsibilities will be for working with the Council's committees and boards and liaison duties with colleagues in connection with the validation and operation of programmes leading to TEC awards. Applications for appointment on secondment from an existing post will be considered.
Applicants should be appropriately qualified and have suitable experience in teaching and/or industrial training in fields related to Engineering, Construction or Science based studies. Knowledge and experience of curriculum development and/or educational technology will be an advantage.
The salary scale is related to that for Grade IV Heads of Departments plus London allowance plus Pay Phase II supplements (£7,658-£8,326 p.a.). Starting salary will depend on previous experience and qualifications.
Further particulars of the appointments can be obtained from the Chief Officer (Ref. AO), Technician Education Council, 76 Portland Place, London, W1N 4AA. Closing date for applications : 10th October 1977.

COUNCIL FOR NATIONAL ACADEMIC AWARDS

APPOINTMENT OF ASSISTANT REGISTRAR

As a result of a resignation, a vacancy has arisen for an Assistant Registrar. The person appointed will be the first instance be jointly responsible to the Registrar for Research Degrees and the Registrar for Quinquennial Reviews.
In addition to their work in specified fields, Assistant Registrars are involved in the development of academic policy.
Candidates for the post should be well qualified academically and should have had appropriate teaching and/or academic administrative experience.
The salary on appointment will be within the scale £5,925-£7,536 (merit bar £6,849) including London Weighting.
Further particulars of the post may be obtained from the Secretary (RD), Council for National Academic Awards, 344/354 Gray's Inn Road, London WC1X 8BP, to whom applications giving details of qualifications and experience and mentioning the names of two referees should be submitted by 14 October, 1977.

AMGUEDDFA GENEDLAETHOL CYMRU
NATIONAL MUSEUM OF WALES

Assistant Keepership of Geology

Applications are invited for an Assistant Keepership in the Department of Geology. Applicants should be qualified in the field of palaeontology : expertise or interest in the interpretation of museum work would be considered an advantage. Candidates pension rights under F.S.S.U. or the Museum Pension Scheme. Salary assistant Keeper II £7,068 per annum to £8,622 per annum (£7,845.41) or £7,068-£8,079 (Museum Pension Scheme) Assistant Keeper I £5,151 per annum to £7,005 per annum (£5,841 to £6,305-£6,053 (Museum Pension Scheme).
Further particulars may be obtained from the Secretary, National Museum of Wales, Cardiff CF1 3NP, to whom applications (four copies) should be submitted not later than *Friday, 14 October, 1977*.

JOINT MATRICULATION BOARD

ADMINISTRATIVE ASSISTANT
(salary scale £2,994-£4,403)
ASSISTANT SECRETARY
(salary scale £4,199-£6,238)

The Board proposes to make an appointment at one of the above levels.
The appointment will be made at a grade in accordance with the qualifications and experience of the person concerned. It will carry USS benefits.
Further details together with an application form may be obtained from the Secretary, Joint Matriculation Board, Manchester M15 6EU. Envelopes should be marked "Administrative staff (D)". The last date for receiving completed application forms will be 10 October, 1977.
R. CHRISTOPHER,
Secretary to the Board

NALGO EDUCATION DEPARTMENT
requires a
SENIOR OFFICER

The applicant should be able to make a contribution to the range of services provided by the education department at headquarters. The post involves some organisation and the commissioning and preparation of study and teaching materials for vocational and professional courses. Substantial administrative experience and knowledge of educational methods is required. Applicants must have a relevant degree or professional qualification. Salary scale £4,866-£5,739 p.a., inclusive of London weighting and supplement, plus an additional 5% of total earnings to a maximum of £205 p.a. approx.
Requests for application forms and further particulars should be sent together with a self-addressed 9in by 5in envelope to the General Secretary, National and Local Government Officers Association, 1 Mabledon Place, London, WC1H 9AJ. Forms should be returned by 10 October, 1977.

Colleges and Institutes of Higher Education

COUNTY OF AVON
BATH COLLEGE OF HIGHER EDUCATION

Applications are invited for appointment as soon as possible to the following posts :

1. Lecturer, Grade II
to teach Fashion Design to students taking B.Ed. degree courses in Dress and Textiles. Applicants should be suitably qualified Fashion/Textile designers.

2. Lecturer, Grade II
in the Department of Home Economics to teach Textile Science and Technology courses of B.Sc (Hons.) Home Economics, B.Ed. Home Economics and B.Ed. Dress and Textiles. Industrial experience would be an advantage.
Salary scale at present £3,273 to £5,493 per annum (plus supplement of £492 per annum). Further particulars from the Principal, Bath College of Higher Education, Sion Hill Place, Bath BA1 5SJ.

Colleges of Higher Education continued

the College of Ripon & York St John

COLLEGE OF RIPON AND YORK ST. JOHN

LIBRARIAN

Applications are invited from appropriately qualified and experienced candidates for the appointment of Librarian in this Church of England Voluntary College of Higher Education (1,800 men and women). The appointment, which becomes vacant on the retirement of the present Librarian, will commence on 1st January, 1978, or as soon after as possible. The College, which was formed in 1975 through the amalgamation of The College, Ripon with St. John's College, York, offers courses leading to the award of the Certificate in Education, the Diploma in Higher Education, the Post-Graduate Certificate in Education, the B.Ed. and B.A./B.Sc. (Collegiate) degrees of the University of Leeds and the Diploma of the British Association of Occupational Therapists.
The Librarian is responsible for all library services on both campuses. The appointment will be at Principal Lecturer Grade (£5,940 plus £312 plus £180 to £6,642 plus £312 plus £180). Further details and application forms may be obtained from the Principal, College of Ripon and York St. John, Lord Mayor's Walk, York YO3 7EX, to whom completed application forms should be returned to arrive not later than Monday, 17th October, 1977.

WEST SUSSEX
INSTITUTE OF HIGHER EDUCATION

Director, J. F. Wyatt, M.A., accompanying Bishop Otter College, Chichester, and Bognor Regis College)

Applications are invited from suitably qualified persons for the following posts :

(1) PRINCIPAL LECTURER in charge of ENGLISH.

(2) LECTURER Grade II in HISTORY (Modern European History to teach in the B.A. course.

Duties of the post may be adjusted from the Director, West Sussex Institute of Higher Education, The Dome, Upper Bognor Road, Bognor Regis, West Sussex.

Closing date for application and cv is 17th October, 1977.

Appointments Wanted

MANCHESTER
THE TEXTILE INSTITUTE
CHIEF EDUCATION OFFICER

The Textile Institute invites applications from suitable persons for the appointment of Chief Education Officer at its headquarters in Manchester. The successful candidate will be responsible for leading the Education System and industry requirements for Textile Science and Technology at the levels of Degree and Diploma. Full job description from the Secretary of the Textile Institute, 10 Blackfriars Street, Manchester M3 5DR. Telephone 061-834 8457.

Research Posts

The Polytechnic of North London

National College of Rubber Technology

POLYMER RESEARCH

Applications are invited for two RESEARCH ASSISTANTSHIPS. The successful applicants will be required to carry out research, under supervision, into selected areas of polymer science and technology such as adhesion, degradation and polymer latices. Applicants should possess a good honours degree in an appropriate science. Registration for a higher degree will be encouraged.
Salary scale : £2,778 × £81 × £2,940 including London Allowance.
Further details from : Dr. D. C. Blackley, Reader in Polymer Science and Technology, National College of Rubber Technology, The Polytechnic of North London, Holloway, London N7. Telephone : 01-607 2789, ext. 2248.

LONDON, N.W.5
THE POLYTECHNIC OF NORTH LONDON
DEPARTMENT OF HISTORY AND PHILOSOPHY

Short-term RESEARCH ASSISTANTSHIP, from October 1, to the date 31, 1978.

RESEARCH ASSISTANT, in connection with a project on Higher Education, 1870-1970, to be undertaken by Dr. M. Sanderson. Applications are invited for the above post, which is tenable for 2 years. Salary £2,778 (age 20) to £3,273 per annum, plus London Allowance. Applicants should have a first degree in the Humanities.

Salary £2,778 (age 20) to £3,273 per annum, plus London Allowance. Applicants should have a first degree in the Humanities.

RESEARCH ASSISTANT

Required for study of school building policy since the war. The project, which is financed by a grant from the HMSO, will be based in London, will examine the history of the DES Architect and Buildings Branch, and the relationship between changes in school design and technology.

The contract would be limited to two years. Suitable for graduates in the social sciences with interest in the post-war period. Research experience desirable but not essential. Preference will be given to candidates who have already read for the subject of the study.

Salary will be at an appropriate point in the Research Assistant scale, £2,778 to £3,273 per annum inclusive of London Allowance.

Applications should be sent as soon as possible to Dr. M. Sanderson, Department of History and Philosophy, The Polytechnic of North London, Prince of Wales Road, London N.W.5.

THE POLYTECHNIC OF NORTH LONDON

RESEARCH FELLOWSHIP IN MODERN LANGUAGES

GRADUATE in SPANISH with a qualification in Applied Linguistics and experience in Language testing and teaching at all levels required as Research Fellow to monitor intensive courses for non-A level entrants to the B.A. Modern Language degrees. Knowledge of German and/or French is essential.

Duties to commence January 1978 for 1 year with possible renewal.

Salary scale : £3,822 to £4,230 (inclusive of London Allowance).

Application forms and further details may be obtained from The Secretary, Department of Languages and Literature, The Polytechnic of North London, Prince of Wales Road, London, N.W.5.

Closing date for applications : 14th October, 1977.

Colleges of Further Education

EALING
(London Borough of)
TECHNICAL COLLEGE
Junior Road, off Uxbridge Road, Hanwell, London W7

Senior Lecturer in Mathematics (Ref. 3/77) £5,742 to £6,213 per annum, inclusive of London Allowance. Candidates for this interesting and responsible post should be graduates or possess equivalent qualifications and have relevant teaching and other experience at appropriate levels.

This council offers free post central heated flats, hostel and cafeteria facilities, up to £300 removal allowance.

Application forms and further details are available from the Chief Executive Officer, Hadley House, Bayhill, Station Road, London, N.W.4 2BS, (please telephone 01-202 2345, ext. 261).

The closing date for application is 14 days after the appearance of this advertisement.

METROPOLITAN BOROUGH OF KNOWSLEY

Applications are invited for the post of

PRINCIPAL
KIRKBY COLLEGE OF FURTHER EDUCATION

which falls vacant in January, 1978, following the retirement of the present Principal. The College is situated in Kirkby town centre in good modern buildings. The post is one which offers considerable scope for development for candidates with drive and initiative.
Salary Group 4 (£8,736 plus £180 per annum).
Full particulars and application forms are obtainable from the Borough Education Officer, Education Office, Huyton Hey Road, Huyton, Merseyside, L36 8YH.
Closing date for completed applications 14th October, 1977.

Overseas

AUSTRALIA
ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY

LECTURER
DEPARTMENT OF CHEMICAL ENGINEERING

Applications are invited for the position of Lecturer in the Department of Chemical Engineering.
The appointee to this position will be required to participate in the undergraduate and graduate level teaching programs in two or more of the following subject areas: process equipment design, reaction engineering, separation processes, energy technology.
Applicants should hold an appropriate qualification in chemical engineering and have had some significant industrial experience. Experience in tertiary level teaching would be desirable.
Salary within the range $A14,031 – $10,261 per annum.
Reference No. 110/13/AZ Closing date 22.10.77
Intending applicants should obtain a Schedule of Duties from the Staff Branch, Level 8, Building 14, 124 La Trobe Street, Melbourne, telephone (03) 341 2337. Applications should be addressed to the Registrar, R.M.I.T., Box 2476V, GPO, Melbourne 3001.

(5008)

Western Australian Institute of Technology

SCHOOL OF HEALTH SCIENCES

The Institute is a major tertiary institution providing courses characterised by a multi and interdisciplinary approach to higher education.

Lecturer in Health Science
(Reference No. HE5 003)

The School of Health Sciences requires a person to coordinate and teach aspects of health care organization, health management, health research method and epidemiology at both graduate and undergraduate level within the School's courses. The person will also be expected to act as a consultant to staff on relevant research projects and to encourage the development of community health research both in and outside the School.
It is expected that the successful applicant will possess qualifications in one of the health science disciplines and a higher degree appropriate to the design, measurement and evaluation of health care. A knowledgeof the Australian health care system and previous experience with community health services research would be a distinct advantage.

Department of Medical Technology

Senior Lecturer in Nutrition and Food Science
(Reference No. HE5 004)

To exercise educational leadership for the Bachelor of Applied Science (Nutrition and Food Science) and Graduate Diploma in Dietetics. Applicants should have qualifications in Nutrition preferably with dietetics experience, relevant teaching, research, and/or clinical experience. A higher degree in Nutrition or a related field would be an advantage. The Nutrition and Dietetics courses conducted by the department are the only such courses available in Western Australia.

Senior Lecturer Medical Technology
(Reference No. HE5 005)

To exercise educational leadership in Human Biology, Histopathology and Pathobiology at undergraduate and graduate levels. Experience in teaching and developing similar programmes is required and applicants with a medical qualification would be highly regarded.

Conditions include :
Salary Range : Senior Lecturer £stg12,375-£stg14,437, Lecturer £stg9,202-£stg12,114 and Senior Tutor £stg7,920-£stg8,085 (salaries quoted at August 2 rate of exchange £stg0.8415 to $A1.00).
Annual, Long Service and Study Leave.
A choice of superannuation is available if required, including a scheeinsimilar to F.S.S.U.
Fares for family plus assistance for removal experiences and temporary accommodation are payable to appointees .
Tenure : Appointment may be either tenured or non-tenured for a period up to three years.
Applications :
Detailed applications, including a curriculum vitae and the names and addresses of three references, should be submitted not later than 31st October, 1977, to the Migration Liaison Officer, Western Australia House, 115 Strand, London WC2R 0AJ, England. A brochure containing further information may be obtained from the above address.
When applying please quote position and reference number : 56.

AUSTRALIA
ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY

SENIOR LECTURER
DEPARTMENT OF MECHANICAL & PRODUCTION ENGINEERING

Applications are invited from well qualified graduate engineers with extensive design/research experience in Thermal Environmental Engineering. Special expertise in Refrigeration Engineering and/or Industrial Heat Transfer would be a distinct advantage.
The appointee will be responsible for the final year degree stream in Controlled Environment Engineering and must be capable of promoting strong industrial/research links with the fields of Energy Conversion and Energy Transfer.
The vacancy arises from the appointment of the present holder of this position to a senior industrial position overseas.
Secondment from industry, government or educational establishment will be considered.
Salary within the range $A19,675 – $A22,965 p.a.
Ref. No.114/05/AN. Closing Date 28.10.77
Intending applicants should obtain a Schedule of Duties from the Staff Branch, Level 8, Building 15, 124 La Trobe Street, Melbourne, Telephone (03) 345 2822 ext. 2337. Applications should be addressed to the Registrar, R.M.I.T., Box 2476V, G.P.O., Melbourne 3001.

(5011)

RUSDEN STATE COLLEGE
DRAMA DEPARTMENT

SENIOR LECTURER IN DANCE

Duties:
The appointee will be responsible for the overall supervision and conduct of dance courses within the College's drama department and will be expected to work with other members of the department's staff in the planning and development of courses in the related arts of drama and dance and to develop models of curricula relating dance to the total arts experience in schools.
Qualifications :
Applicants should have achieved professional distinction in the field of dance particularly in areas relating to choreography and dance production. A wide knowledge of teaching techniques and their application to dance production is essential. This should preferably be supported by experience of organising and teaching such courses at the tertiary level. A degree of Doctor of Philosophy in studies relating to the arts is desirable.
Salary: Senior Lecturer—salary range $19,675-$22,965 p.a.
Further information relating to this position may be obtained from the Starting Officer with whom written applications close on October 28, 1977.
RUSDEN STATE COLLEGE, 662 Blackburn Road, North Clayton 3168, Victoria, Australia.

Western Australia Institute of Technology

WAIT is a major Australian tertiary education institution, with an internationally recruited academic staff whose duties are mainly related to teaching. At present there are over 11,000 students undertaking degree or diploma studies at both undergraduate and graduate levels. Academic programmes may betaken on a full-time, part-time or external study mode, and in general are vocationally oriented. Academics wishing to workin a stimulating environment are invited to apply for the positions listed below.

SCHOOL OF APPLIED SCIENCE

CHEMISTRY—TUTOR/SENIOR TUTOR/LECTURER. each general (first year) chemistry and conduct self-paced (Keller plan) classes. his is a non tenured position for a period of 1 or 2 years. (Ref HE5 008).

BIOLOGY—LECTURER. Teach and develop courses in either entomology or fish biology. (Ref HE5 006)

INORGANIC CHEMISTRY—TUTOR/SENIOR TUTOR/LECTURER. Teach inorganic, analytical and general chemistry at first and second year level. This is a non tenured position for 2 years. (Ref HE5 007)

SCHOOL OF BUSINESS & ADMINISTRATION

ACCOUNTING—TUTOR/SENIOR TUTOR/LECTURER. Teach Financial and Management Accounting and Auditing. Practical, accounting experience preferred. (Ref HE5 009)

BUSINESS POLICY—TUTOR/SENIOR TUTOR/LECTURER. Develop and conduct computer business games. Commercial experience essential. (Ref HE5 024)

ECONOMICS—TUTOR/SENIOR TUTOR/LECTURER. Teach applied macro and micro economics mainly to business students. Practical business experience and qualifications in related areas preferred. (Ref HE5 010)

EDP SYSEMS ANALYSIS—TUTOR/SENIOR TUTOR/LECTURER/SENIOR LECTURER. Teach analysis, design and implementation of computer systems for business and government. Practical application experience necessary. (ef HE5 021)

FINANCE—LECTURER/SENIOR LECTURER. Teach financial analysis, planning and financial management techniques. Professional experience in finncial management preferred. (Ref HE5 022)

PUBLIC ADMINISTRATION—TUTOR/SENIOR TUTOR/LECTURER. Teach politics, comparative and local government and government finance. Maintain professional association with Federal, State and Local Government Personnel. Practical experience at one level of Government essential. (Ref HE5 023)

PERSONNEL AND INDUSTRIAL RELATIONS TUTOR/SENIOR TUTOR/LECTURER. Teach all elements of the personnel and industrial relations functions. Practical experience at a professional level is required. ef HE5 025)

LAW—TUTOR/SENIOR TUTOR/LECTURER. Teach law to business students in the following areas : Commercial Law, Law of Real and Personal Property, Corporate Law, Law and Practice relating to government taxes. Applicants should possess a degree in Law or Jurisprudence. (Ref E5 011)

ORGANIZATION THEORY—TUTOR/SENIOR TUTOR/LECTURER. Teach management and organisation subjects. Experience in office systems, methods study and business games desirable. (Ref HE5 026)

VALUATION—TUTOR/SENIOR TUTOR/LECTURER. Teach Degree and Diploma students. Applicants must be qualified valuers, preferably with expertise in land economics and utilization. (Ref HE5 020)

SCHOOL OF TEACHER EDUCATION

CURRICULUM & INSTRUCTION—GENERAL—SENIOR LECTURER. Teach curriculum theory and development with emphasis on Research design and/or Curriculum Evaluation. (Ref HE5 012)

CURRICULUM & INSTRUCTION—MATHEMATICS—TUTOR/SENIOR TUTOR/LECTURER. Teach primary (elementary) maths education. Some knowledge of computer assisted learning preferred. (Ref HE5 017)

EDUCATIONAL PSYCHOLOGY—SENIOR LECTURER. Teach special education with particular reference to early childhood primary level. (Ref HE5 015)

CURRICULUM & INSTRUCTION—SCIENCE—TUTOR/SENIOR TUTOR/LECTURER. Teach science education with major emphasis on science in the primary (elementary) school. (ef HE5 016)

CURRICULUM & INSTRUCTION—READING—SENIOR LECTURER. Teach reading skill acquisition and development especially for early childhood and primary levels. (Ref HE5 014)

ANALYSIS/STRATEGIES/FIELD EXPERIENCE—SENIOR LECTURER. Teach Analysis and Strategies of Teaching with supervision of student teaching at early childhood, primary or secondary level. (Ref HE5 013)

ANALYSIS/STRATEGIES OF TEACHING—TUTOR/SENIOR TUTOR/LECTURER. Teach classroom observation techniques, teaching strategies and microteaching. Experience in working with College teachers preferrod. (Ref HE5 018)

FIELD PRACTICE—TUTOR/SENIOR TUTOR/LECTURER. Teach theory and practice of teaching with supervision of student teaching at early childhood, primary or secondary level. (Ref HE5 019)

SCHOOL OF MINING & MINERAL TECHNOLOGY (Located at Kalgoorlie)

MINING & ENGINEERING—LECTURER. Teach Mining Technology, in the new degree course in Mining and Engineering. This is a non tenured position. (Ref HE5 028)

EXTRACTIVE METALLURGY—LECTURER. Lecturer in metallurgy therom-dynamics and unit processes to degree and graduate diploma level. Experience in metallurgy, industrial experience in iron ore, steel-making or non ferrous smelting preferred. This is a non tenured position. (Ref HE5 029)

GEOLOGY—SENIOR LECTURER. Teach, develop and supervise mining geology. Experience in Archean geology required, preferably in the field and underground. Good knowledge of ore genesis, igneous petrology, structural geology and the broader aspects of stratigraphy desirable. This is a non tenured position. (Ref HE5 030)

Conditions Included :
Salary range : Senior Lecturer £12,447-£14,521, Lecturer £9,256-£12,185, Senior Tutor £7,966-£9,138 and Tutor £6,555-£7,732 (Salaries quoted at August 29th rate of exchange £0.6326 = $A.100).

Qualifications : Senior Lecturer—A good higher degree and considerable experience, including tertiary teaching, are preferred. Lecturer—Post Graduate qualifications with experience, including teaching, are preferred. Senior Tutor/Tutor—A relevant degree with some industrial or teaching experience is preferred. **Leave :** Annual, Long Service and Study Leave. **Superannuation :** A choice of superannuation is available if required, including a scheme similar to FSSU. **Transfer Expenses :** Fares for family plus assistance for removal expenses and temporary accommodation are payable to appointees. **Tenure :** Except where indicated—Appointment may be either tenured or non tenured for a period up to three years.

Applications :
Detailed applications, including a curriculum vitae and the names and addresses of three referees should be submitted not later than 28th October, 1977 to the Migration Liaison Officer, Western Australia House, 115 Strand, London WC2R 0AJ, England. A brochure containing further information may be obtained from the above address. When applying please quote position and reference number.

Overseas

OVERSEAS TEACHING POSTS

LECTURER IN ENGLISH LANGUAGE AND LITERATURE (Japan)

Hiroshima University
MA and at least 2 years' teaching experience.
Salary: Yen 191,000-250,000 per month. (Rate of exchange approximately Yen 470=£1) and annual bonus.
Benefits: Installation and education grants; rent allowance; medical scheme; two year contract. 77 PU 150

SPECIALIST IN THE TEACHING OF ENGLISH AS A FOREIGN LANGUAGE (Pakistan)

Peoples Open University Islamabad
Candidates should be U.K. citizens, possess an MA in Applied Linguistics and have considerable experience in TEFL overseas and in materials preparations. Prior involvement in use of radio and television as a medium of instruction is an advantage.
Salary: Process of present emoluments.
Benefits: Overseas allowances; education allowances; free accommodation; medical scheme 2 year contract. 75 UU 52

LECTURER IN ENGLISH (South Africa)

University of Fort Hare
Lecturer to run Practical English Course specifically catering for the Xhosa speaking group.
Degree in English, and experience of tertiary level English teaching essential. One year university qualification in TESL desirable. Singlet candidates only.
Salary: £4,490-£6,514 p.a. approx.
Benefits: free furnished accommodation, employers portion of UK superannuation. 3 year contract. 77 HU 62

ELT SPECIALIST IN INSTRUCTIONAL MATERIALS (Thailand)

Chulalongkorn University, Bangkok
To devise tests and develop general and ESP materials.
Qualifications: Graduates with relevant postgraduate qualification and at least 3 years' experience.
Salary: £5,210-£7,054 plus 10 per cent inducement allowance p.a.
Benefits: personal and children allowances; free furnished accommodation, medical scheme employer's portion of superannuation contribution. 2 year contract. 76 TU 104
Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience; quoting relevant reference number and title of post, for further details and application form to The British Council (Appointment), 65 Davies Street, London W1Y 2A.

THE BRITISH COUNCIL

THE BRITISH COUNCIL

Science Education in Nigeria

1. Inspector of Education (Physics/Mathematics),
Ministry of Education, Benin City, Bendel State.

2. Inspector of Science,
Ministry of Education, Sokoto, Sokoto state

Both Ministries of Education have programmes for the improvement of science education to meet Nigeria's developmental needs. These posts will occupy key positions in the programmes and their occupants will be able to provide a significant influence on the future development of science education in the States. The persons appointed will carry out the usual duties of the Ministries' inspectorates and will contribute also to the Ministries' staff development programmes and to the planning and organisation of in-service training programmes. Both posts will have some responsibility for developments in primary education in addition to their main work in the field of secondary education.

For both posts an appropriate science degree and a professional qualification in education are essential. At least eight years' post-qualification experience is required and should include some experience of work in a developing country. For the Benin post ,experience of work in mathematics education as well as physics will be a strong recommendation. For the Sokoto post a particularly appropriate background would be a specialisation in physics with experience of integrated science at junior secondary level.

Appointments in both cases will be to the British Council on contract terms, initially for two years, with secondment to the Ministries. Service may be on secondment from a candidate's present employer.
The salary scale is between about £5,900 and £6,900 and overseas allowances are between about £2,300 and £5,500 depending on family circumstances. Free furnished accommodation overseas, paid passages for famil yand children's education allowances will be provided.

Selections will be by London interviews and board. Write or telephone, quoting ref C13 for further details and an application form to be returned by October 31, to Staff Recruitment Department, The British Council, 65 Davies Street, London W1Y 2AA (01-499 8011, ext. 3041).

Deputy Director

Curriculum Development Centre

Canberra, Australia
$A24,252 p.a.

Applications are invited from interested persons for short or long-term engagement to this newly approved post.

The Centre
The Curriculum Development Centre to undertaken a range of tasks in and lished by the Australian Government is a national statutory body, established relating to school curriculum. Its work involves close cooperation with authorities responsible for school systems and teacher education, specialist groups of teachers, government departments and agencies and a variety of professional and community groups with an interest in education.

The Deputy Director
The precise role of the Deputy Director will be delineated according to Centre programme priorities and the interests and expertise of the successful applicant, but will include :
assistance and support for the Director in the overall management of the Centre's affairs
policy advice and initiation
direct involvement in some of the Centre's ongoing programmes including coordination of programmes and some major projects
leadership and advice to staff
In addition, the Deputy Director will be required to represent the Director at conferences and seminars, to undertake public speaking engagements and to manage the Centre in the Director's absence.

Qualifications and Experience
Interested persons should have appropriate academic qualifications including a higher degree in an education-related field and substantial experience in one or more of the following : academcl institutions, research, curriculum development, educational administration.

Terms of Appointment
The term of engagement may be either 2-3 years or permanent. This will be decided in discussion with candidates selected for interview, but candidates should indicate their preference—and argument thereto —when applying.

Conditions of Service
The successful applicant will be entitled to the terms and conditions of service applicable to Second Division Officers of the Australian Public Service. The Centre will bear reasonable costs of removal and travel to Canberra of the successful applicant and his family. A summary of conditions of service is available on request.
At present exchange rate £1 equals $A1.59 approximately.

How and Where to apply
Applications should contain a comprehensive curriculum vitae including details of degrees, other qualifications, awards, relevant experience, publications and include a statement of interest in the post. Names and addresses of three referees should be included.

Apply to : Mr. P. C. Maher, Assistant Director, Curriculum Development Centre, P.O. Box 632, Manuka, A.C.T. 2603, Australia.
Additional information available from the above address.

Australia

FRANCE

INSTITUT SUPERIEUR DE GESTION COMMERCIAL

In Saint Etienne. The Chamber of Commerce Business College offering two and four year courses, offer the the routine to a TEACHER LECTURER to assist in the ENGLISH DEPARTMENT from November 1977 to June 30th, 1978. Salary 3,500 fr. monthly. Graduate with good knowledge of French. Willingness to participate actively in activities in and out of class and to mix with students essential. Interviews in London during late October. Write with curriculum vitae, photograph, personal telephonic number and the names, addresses and telephone number of two referees to Institut Supérieur de Gestion Commerciale, 31 rue d'Arcole, 42000 Saint Etienne, France.

Colleges of Higher Education continued

WEST SUSSEX
INSTITUTE OF HIGHER EDUCATION

Director: J. F. Wyatt, M.A. (Cambridge), Higher Diploma (Manchester). Chief Executive and Registrar, Bognor Regis College.
Applications are invited from suitably qualified persons for the post of ASSISTANT DIRECTOR (Developments) at Head of Department (Under VI in the Burnham F.E. Report).
Details of the post may be obtained from the Director, West Sussex Institute of Higher Education, The Dome, Upper Bognor Road, Bognor Regis, West Sussex.
The closing date for applications will be 17th October, 1977.

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